Incorporating *International Commerce*

MAY 14, 1973

Commerce Today

Coming Developments in Business and Technology

Newsmemo

A Commerce specialist on the land faults that trigger earthquakes is tracking them on both sides of the Pacific. Dr. Chi-Yu King, of the National Oceanic and Atmospheric Administration's quake mechanism lab in San Francisco, is heading for Taiwan to develop a fault movement study, working with the Earthquake Research Center there. Four creepmeters will measure fault movement electronically in one of the earth's most active earthquake zones. Similar studies are being made on the San Andreas, Calaveras and Hayward Faults in California.

Canadians, already in a buying mood, are welcoming about 170 consumer and food import items with 5 percent tariff cuts. U.S. exporters of washing machines, power lawn mowers, furniture, tires and tubes, canned meats, peanut butter, fruits and vegetables and other items are reminded that this temporary reduction extends through next Feb. 20. Meanwhile sales in Canada of major appliances hit record levels in 1972, and furniture plants are months behind demand despite a 40 percent import increase. Full information on the tariff cuts is available from Commerce's 43 District Offices or from Edward Mullelly, Office of Int'l Marketing-BIC, U.S. Dept. of Commerce, Washington, D.C., 20230.

U.S. commercial fisheries landed about $704 million worth of fish last year for which consumers paid about $2.1 billion at retail prices. The 1972 catch brought fishermen about 9 percent more in money than in 1971, though the volume--4.7 billion pounds--went down 6 percent. The catch still weighed about 5 percent over the previous five-year average. Want more figures? They are in "Fisheries of the United States 1972", published by Commerce's National Marine Fisheries Service and available at $1.25 from Superintendent of Documents, U.S. Govt. Printing Office, Washington, D.C., 20402.

March trade figures illustrate a point about such statistics that is worth remembering. There was a large reduction in our merchandise trade deficit, but a closer look showed that aircraft and farm exports had a major part in it, and these categories are subject to wide variations or special supply situations. "The large reduction...should not necessarily be interpreted as indicating that a sustained improvement in our trade position is under way," commented Commerce Secretary Dent. "Frequently, there are wide variations in monthly figures and the true picture only emerges over a longer time period." That is why this magazine relies on quarterly rather than monthly analyses of U.S. trade.

A trade mission, like a stone dropped in water, has effects that continue on and on. But some post-mission results occur quickly. Neomed, Inc., of Boulder, Colo., showed an electrosurgery unit to Saudi Arabian officials on a recent hospital supply mission. After the mission returned to the U.S. a priority cable was received from the American Embassy in Jidda asking that one of the units be air-shipped immediately for use in an emergency operation. Neomed has responded and is now one important sale over the "new-to-export" hump.

Commerce Today

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Vol. III, No. 16, May 14, 1973

2 Economic Highlights

Exceptionally strong sales of durable goods, especially automobiles, in the first quarter of 1973 demonstrated the spending mood of consumers.

4 New Trade Bill, Currency Moves Spotlit As World Trade Week Opens

Communities throughout the nation will be involved next week in special activities marking this annual effort to spur U.S. trade.

9 Businessmen Set New Guides To Deal With Consumer Problems

New reports by National Business Council on Consumer Affairs concern product warranties, responsive approaches to consumer complaints.

13 Rail, Marine Interface Key To Intermodal Transport

Maritime Administration studies Port of New York operations in an effort to cut costs, time, distances and thus enhance U.S. competitiveness.

16 Domestic Business Report

Nation's energy needs can be met by innovative research—Hawaii requests synthetic natural gas plant in foreign trade zone—Total value of new construction at $138.2 billion—Better educated, mobile Americans in marketplace—Bullish climate in small business community.

25 Science & Technology Report

New technology program to aid industry—Attempt made to increase salmon production—Man's pollution hasn't yet affected ocean atmosphere—Fishery industry urged to ease pricing policy—River floods surge into Gulf altering fish locations—Patents of interest.

31 International Commerce Report

Business speedups expected to spur trading tempo, survey of firms discloses—Founding conference of U.S.-China trade council—Steel mill equipment mission report from Mexico—Report on annual IEA conference—Economic trends in Germany, Australia, Pakistan, Belgium—Calendar for traders World Trade Week events—Schedule of overseas trade promotions.

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COVER: *More than 40,000 copies of this poster have been sent to companies throughout the country in preparation for World Trade Week, May 20-26. This year's poster points up the role of foreign trade in boosting employment in the U.S., thus strengthening the domestic economy. Story about the special week's activities begins on Page 4.*

ECONOMIC
HIGHLIGHTS

Durables Sales Reflect Consumer Confidence In First Quarter; Auto Purchases Set Record

Economic Highlights is prepared by the Office of the Assistant Secretary for Economic Affairs, and is based on the latest economic indicators (see charts on adjoining page).

The American consumer, buoyed by the outlook for further increases in jobs and income, demonstrated his propensity to purchase in the first quarter of 1972. The remarkably strong demand was centered in durable goods, particularly automobiles—postponable items that traditionally sell rapidly when consumers are sanguine about their personal economic outlook.

Sales of automobiles approached 2.5 million units in the first quarter, 12 percent above the previous high for a first quarter. The 1.14 million cars sold in March was a record for any month, surpassing by 7 percent the previous record set in October 1972. Sales of trucks also boomed, especially the lighter vehicles that have become increasingly popular as recreational vehicles.

Final sales of all durable goods, as measured in the Gross National Product accounts, expanded at an annual rate of 27 percent in the first quarter compared with a yearly gain of 11½ percent from 1971 to 1972. Sales apparently exceeded expectations: inventories of durable goods dropped sharply after rising substantially in the last half of 1972. The decline was especially sharp in the auto industry. For example, the number of cars in inventory on April 1 was equal to sales of 46 days, compared with 51 a month earlier and 61 on April 1, 1972.

The surge in sales of postponable items may have resulted from several factors:

► The sustained rise in homebuilding is probably still stimulating demand for home furnishings even though housing starts are below the peak of late 1972.

► The spending capacity of consumers continues to move up strongly. Employment continues to grow and incomes are rising steadily. Moreover, individual income tax refunds will total about $9 billion higher in 1973 than would otherwise be expected because of the overwithholding of taxes from paychecks last year. While the rate of refund payout in the first quarter was about the same as in the similar 1972 period, taxpayers were well aware of the larger refunds to come and there may have been a substantial amount of anticipatory buying. Consumer installment debt registered a huge increase in the first quarter.

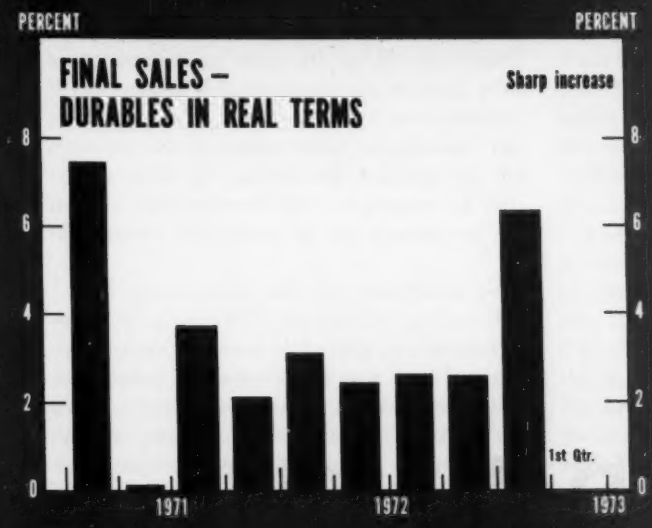
► Consumers may have rushed to buy items they assumed would increase in price. For example, imported cars and other foreign goods already in stock generally were not affected by the February devaluation, and some consumers bought these foreign goods before the effects of devaluation caused the prices to rise. Some consumers also are aware that the addition of required anti-pollution equipment will tend to raise price tags on future automobile models, both domestic and foreign.

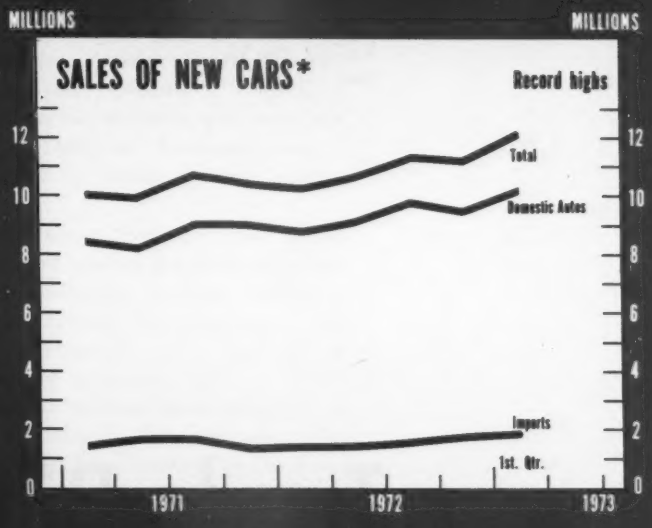
Thus, sales of automobiles and other consumer hard goods may run up impressive totals in 1973. However, there will be no impetus from some of the special factors later in the year and growth in consumer purchases of durables may slow to a more measured and sustainable pace.

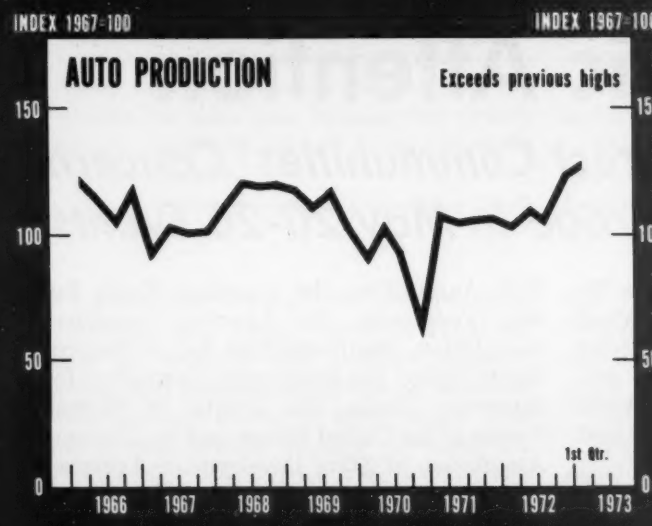
Other economic data

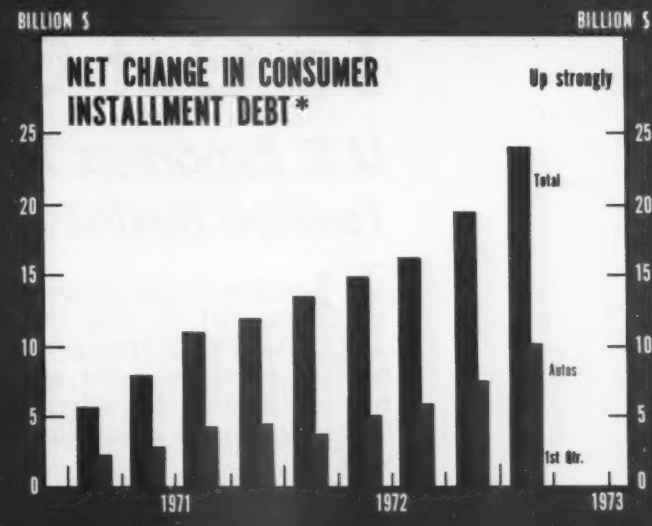
The U.S. foreign trade deficit in March was much smaller than in any recent month. The vigorous gains in factory orders for durable goods indicate further increases in industrial production.

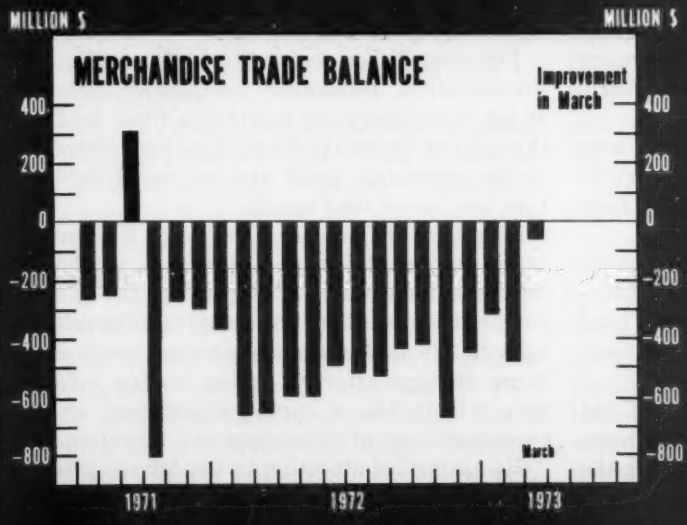
Latest Indicators

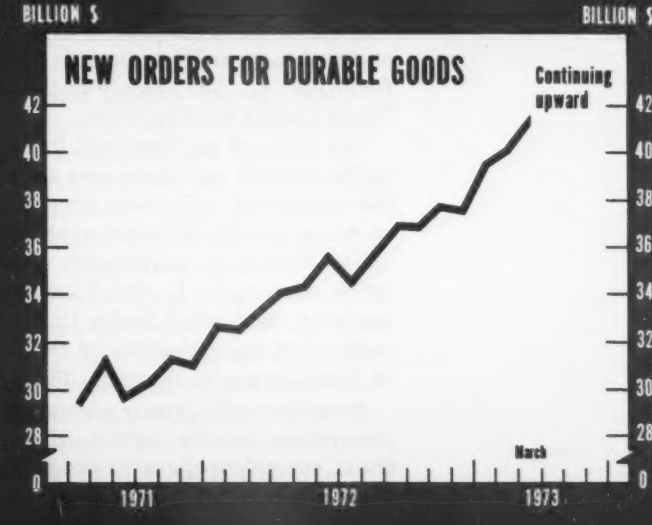












All data seasonally adjusted
*Annual rate

Commerce Today
Vol. III, No. 16
May 14, 1973

Trade Bill, Dollar Shifts To Get Civic Attention

U.S. Exporters To Direct Communities' Concern Toward Business Abroad In May 20-26 Events

President Nixon's proposed Trade Reform Act of 1973 and the export opportunities arising from the recent revaluations of the dollar and other currencies will draw top attention at World Trade Week events around the country next week.

U.S. exporters will invite their communities to join them at seminars, luncheons and dinners, and even (in Utah) to be up with the birds for breakfast, to ride a riverboat on the Arkansas River, and to tour the many facilities of the newly-dedicated World Trade Center in New York.

But most of all they will have their ears to the ground and their eyes on a return to the customary U.S. trade surplus, in a time of rising worldwide sales expectations.

The May 20-26 observance will be coordinated once again by the Chamber of Commerce of the United States through its local units, with the assistance of the Department of Commerce's 45 District Offices.

Reflecting the growing awareness of the importance to the nation of its overseas trade, several co-sponsors are joining for the first time or greatly expanding their efforts. These include the American Association of Port Authorities, the American Farm Bureau Federation, the American Importers Association, the Committee for a National Trade Policy, the Emergency Committee for American Trade, the League of Women Voters of the United States, and the National Association of State Development Agencies.

These organizations can provide further information on World Trade Week activities in specific communities, in addition to the details reported below.

President Nixon, in his World Trade Week proclamation, reiterated the determination of his Administration to achieve freer trade throughout the world through major reforms in the monetary, tariff and non-tariff fields (see box insert on Page 5).

Secretary of Commerce Frederick B. Dent, in his statement for the observance, emphasized the importance of improving the U.S. competitive position in global commercial activity. He said improvement must begin at home, through effective action to stop inflation, stimulation of capital investment, and encouragement of innovation and invention.

He also called attention to the Administration's trade bill, saying; "This legislation would enable the United States to negotiate

President Nixon, in proclaiming the week beginning May 20 as World Trade Week, asked Americans to participate with the business community and Governmental agencies in activities that emphasize the importance of worldwide trading to the nation. He offered this summary of current trade conditions in his statement:

We stand today on the threshold of a new era of peace in the world—a time that opens new and ever-widening opportunities for global cooperation which can bring a greater measure of progress and prosperity for the peoples of all nations. One of the most powerful forces for such progress can be the expansion of world trade.

Our advanced industrial technology, our highly efficient agricultural system, and our increasingly productive labor force have combined to make America the largest exporter of all countries in the world. In the process we have also become the world's largest marketing country for the products of other countries.

History clearly demonstrates that trade creates more and better-paying jobs for American workers, a wider choice of products for American consumers, enhanced opportunities for the creative and competitive skills of American business, and a higher standard of living for all Americans.

But we also know that expanded trade must be achieved within the context of an international economic system which is fair to all participants. For this reason the United States proposed major reforms in the international monetary field in 1972; marked progress toward their adoption is presently being made. For this same reason, I have recently submitted to the Congress the Trade Reform Act of 1973. Its enactment will enable the United States to enter the international trade negotiations later this year with the tools we need to achieve fair reductions in trade barriers, to help build a new international economic order and to advance our interests within it.

Under such legislation, the United States can continue to work with other nations in building a fair and open trading world.

for a more open and equitable world trading system—to deal effectively with rapid inceases in imports that disrupt domestic markets and displace American workers—to strengthen our ability to meet unfair competitive practices—to manage our trade policy more efficiently and use it more effectively to deal with special needs such as U.S. balance of payments and inflation problems—and finally, to take advantage of new trade opportunities while enhancing the contribution trade can make to the development of poorer countries."

Secretary Dent will help get the week-long celebration under way with a May 21 address to a Manufacturing Chemists Association luncheon in Washington. He will also speak at the American Iron and Steel Institute's dinner in New York later in the week.

Man of the year

The World Trade Club of San Francisco will present its International Man-Of-The-Year Award to Eximbank President Henry Kearns at its World Trade dinner meeting. Oakland's World Trade Club will follow with its annual salute to the Bay Area's Consular Corps at its International Banquet. Other San Francisco area events will include the Propeller Club's Maritime Day Luncheon, and a planned all-day seminar of the Santa Clara Valley World Trade Club in Palo Alto.

Los Angeles' observance will center around a May 24 World Trade Week Luncheon sponsored jointly by all export groups in the Los Angeles area. As many as 1,300 people are expected to hear Treasury Secretary George Shultz speak at this event. In addition, the City of Los Angeles and the Export Managers Association will sponsor a World Trade Seminar. A World Affairs Council meeting will feature a talk by Roy Ash, Director of the Office of Management and Budget.

Hawaii's World Trade Week plans include a combined luncheon meeting sponsored jointly by the World Trade Association, the Propeller Club, Chamber of Commerce, and the Regional Export Expansion Council. A special conference on development of trade between the United States and post-war Vietnam will be sponsored by the Center for International Business, and consulates in Hawaii are being encouraged to hold mini-trade shows and stage cultural activities.

San Diego's International Marketing Association is sponsoring a World Trade Semi-

nar and Luncheon. Featured speaker will be Thomas E. Drumm, Jr., the Commerce Department's Ombudsman for Business.

The San Diego Propeller Club's Maritime Day Luncheon will hear Howard F. Casey, Deputy Assistant Secretary of Commerce for Maritime Affairs.

Casey will also be the featured speaker at the Seattle Propeller Club's Maritime Luncheon. The Seattle World Trade Club will present its annual World Trade Man of the Year Award during the week, and the Commerce District Office will cooperate with the Small Business Administration Field Office in sponsoring an export finance seminar.

Also in Seattle, the Pacific Northwest International Trade Council will present a public forum on the role of the four Northwest states—Idaho, Montana, Oregon, Washington —in a recent Tokyo trade show.

Portland, Oregon's, observance will center on a Chamber of Commerce Luncheon and Forum to be addressed by William D. Eberle, the President's Special Trade Representative. Across the country in Portland, Maine, the Propeller Club will hold a Maritime Luncheon the same day.

Boston will have a World Affairs Council Luncheon, to be addressed by U.N. Under Secretary General F. Bradford Morse; a Maritime Day Luncheon sponsored by the Propeller Club; and a World Trade Week morning panel and luncheon under the auspices of the International Center of New England.

Providence, R.I.'s World Trade Club will stage its World Trade Week Dinner May 22 at the Howard Johnson Motor Lodge in Warwick, R.I.

Georgy Schukin, Chairman of the Kama Purchasing Commission of the USSR, will discuss trade with Russia at the Connecticut REEC's World Trade Dinner in Hartford.

'Path to progress'

Major events in the New York-New Jersey observance, under the theme this year of "World Trade—Path to Progress," include the annual New York World Trade Day Luncheon sponsored by the New York Chamber of Commerce and Industry and its affiliated World Trade Club of New York. William R. Pearce, Deputy Special Trade Representative of the President, will be principal speaker. National Maritime Day, May 22, will feature ceremonies at Battery Park, sponsored by the shipping industry.

Attention will be directed across the Hudson River when the annual New Jersey World Trade Day Luncheon will be held in Newark, sponsored by the World Trade Association of New Jersey.

A "World Port Day" observance on Thursday under the auspices of The Port Authority of New York and New Jersey will be held this year at the recently-dedicated World Trade Center in lower Manhattan. Tours and briefings concerning the center, including its World Trade Institute, World Trade Information Center and the "Interfile" computerized trade data system with other trade centers around the world, will be featured.

Spotlight on Ecuador

Ecuador Night, May 24, sponsored by the World Trade Club of New York in cooperation with the Ecuador-Pan American Association will spotlight Ecuadorian products, and include a dinner meeting to be addressed by Alberto Quevedo Toro, Ambassador of Ecuador to the U.S..

"America—North and South" Conference, sponsored by the International Study & Research Institute will enable diplomats, business leaders and trade experts to examine and make recommendations on current diplomatic and business relationships between the U.S. and Latin America.

The feature event in Upstate New York will be an address by William D. Eberle, the President's Special Trade Representative, at the Tri-City World Trade Conference in Syracuse. Sponsors include the Buffalo World Trade Association, the Rochester World Trade Council, and the World Trade Club of Central New York.

Commerce Secretary Dent is scheduled to deliver the commencement address at the Philadelphia College of Textiles and Science. Elsewhere in the Greater Philadelphia Area, the Mayor's Committee for World Trade Week will hold a National Maritime Day Luncheon, and the Foreign Traders Association's World Trade Dinner will be addressed by Lawrence A. Fox, Acting Assistant Secretary of Commerce for Domestic and International Business.

Another Cabinet member, Treasury Secretary Shultz, is also scheduled to visit Pennsylvania, addressing the meeting of the Economic Club of Pittsburgh. The Regional Expansion Councils of the Northeastern Region will also meet in Pittsburgh (see story, page 31).

Elsewhere in Pennsylvania, the Chambers of Commerce in Beaver Falls, Meadville and Washington will hold World Trade Week Luncheons keyed to export opportunities in Eastern Europe.

Charleston, South Carolina's National Maritime Day Dinner will be addressed by John Hennessy, Assistant Secretary of the Treasury for International Affairs.

In North Carolina, a joint meeting of the world trade clubs of High Point, Greensboro and Winston-Salem will be held in High Point, and an export conference is planned in Charlotte.

Atlanta will hold a three-day Trade and Investment Workshop sponsored by the Pan-African Business Center, the Atlanta Chamber of Commerce and Commerce's District Office. The Georgia International Trade Association will hold a World Trade Week Luncheon.

Savannah will hold both a World Trade Luncheon and Maritime Day Banquet on May 25, sponsored by the Propeller Club and the Port of Savannah.

Chattanooga's Kiwanis Club will hear Deane R. Hinton, Deputy Director of the President's Council on International Economic Policy, at an annual World Trade Week Luncheon.

New Florida conference

Florida businessmen will discuss ways to boost the state's world trade potential at the newly-instituted Governor's Conference on World Trade, in Miami. The two-day event is being sponsored by the newly-formed Florida Council of International Development. Speakers include C. Langhorne Washburn, Assistant Secretary of Commerce for Tourism, and Marinus van Gessel, Deputy Assistant Secretary of Commerce for International Commerce and Director of the Bureau of International Commerce.

Jacksonville's exporters will hear a Jamaican Government trade official at their annual World Trade Luncheon.

San Juan, Puerto Rico will key its World Trade Week activities to "Transportation in the Caribbean Area, its Problems and Solutions" at a full-day workshop.

Japanese Ambassador to the U.S. Nobuhiko Ushiba will address the Alabama World Trade Day Luncheon in Mobile. The event is co-sponsored by the Alabama World Trade Association and the Mobile Chamber of Commerce.

DEEP IN THE HEART OF . . . KANSAS CITY???
Part of the crowd of more than 1,000 who attended a special 1972 World Trade Week candlelight dinner honoring Japan file into the limestone cave which Great Midwestern Corp. uses as a distribution center 140 feet underground, and which was converted into a banquet hall for the occasion. This year Kansas City is paying tribute to Mexico.

Mississippi's exporters will attend a World Trade Week Forum held by the Mississippi Marketing Council in Biloxi.

New Orleans is the scene for the American Industrial Growth Council's meeting on "Growth Industries in the Next Decade." Also in New Orleans, Robert W. Miller, Asst. Director of the President's Council on International Economic Policy, will address the Young Men's Business Club's World Trade Luncheon.

An all-day export conference aboard the riverboat "River Star" on May 22, which has been officially designated World Trade Day in Arkansas, will highlight the Little Rock observance of World Trade Week. Assistant Secretary of State for Economic Affairs Willis C. Armstrong is scheduled to participate.

The World Trade Council of the Memphis Area Chambers of Commerce will hold an annual World Trade Day Luncheon. Featured speaker will be Under Secretary of Agriculture J. Phil Campbell.

Cleveland is planning a four-day schedule of events culminating in a World Trade Week Dinner, which will include an "E Award" presentation.

Cincinnati's Rotary Club will hold a World Trade Luncheon.

The Ninth Annual Wisconsin International

PREPARING FOR WORLD TRADE WEEK—*Denver area businessmen got in the mood for World Trade Week by attending a course on "How to Develop International Business." Frank R. Lineaweaver Jr. (left), who gave the eight-week course, commends W. Bayne Gibson of Electra Medical Services on completion. Mel R. Sherar of the Denver District Office (2nd left) and John G. McMurtry, District Office director (right), look on.*

Trade Conference, in Milwaukee, will feature Steven Lazarus, Director of the Commerce Department's Bureau of East-West Trade, as luncheon speaker.

Minnesota's observance will center around the Upper Midwest World Trade Day program at St. Paul. Dr. Edward Allen, Deputy Assistant Secretary of Commerce for International Research and Analysis, will take part in the breakfast session on "Doing Business With the Expanded EEC," and former Commerce Secretary Peter G. Peterson will be the luncheon speaker.

The Chicago area's observance will include a discussion of trade with Southeast Asia sponsored by the International Trade Club of Chicago, a National Maritime Day Luncheon sponsored by the Propeller Club, the report of an investment mission to Hong Kong sponsored by the Chicago Association of Commerce and Industry, an American Institute of Industrial Engineers discussion of "Multinationals and the Changing World Economy," and a Kiwanis' Luncheon.

Elsewhere in Illinois, a World Trade Week Dinner is planned for Herrin, sponsored by Southern Illinois, Inc.; a luncheon in North Peoria, sponsored by the local Rotary Club; an all-day East-West Trade Conference in Rockford sponsored by the state of Illinois and the First National Bank & Trust of Rockford; and a World Trade Week dinner in Springfield, sponsored by the Springfield Rotary Club.

Detroit traders can attend the Greater Detroit Chamber of Commerce World Trade Luncheon featuring Dr. Marina Whitman of the President's Council of Economic Advisers, an Economic Club Luncheon to be addressed by Gen. Creighton Abrams, or World Trade Luncheons sponsored by the Exchange Club, Downtown Lions and Downtown Kiwanis in Saginaw; a Rotary Club luncheon in Bay City; a South Wayne County Chamber of Commerce luncheon in Wyandotte; and a dinner in Grand Rapids.

Emphasis on Mexico

Kansas City, in keeping up with its custom of paying tribute to an individual foreign trading partner each year, is putting the emphasis on trade with Mexico. The guest list for the keynote banquet includes former Mexican President Miguel Aleman. William S. Pearce, the President's Deputy Special Representative for Trade Negotiations is the featured speaker. A full-day seminar on doing business with Mexico will feature prominent Mexican executives who are members of a trade mission visiting Kansas City. Cultural events will include the première of a Mexican motion picture and a concert by visiting Mexican pianists.

Denver's World Trade Symposium at the Brown Palace Hotel is planned to feature a discussion of East-West trade prospects, and talks by Gov. John A. Love and Sen. Peter Dominick.

High school graduations during the week of May 20-26 caused World Trade Week to be observed a week earlier in the Utah-Idaho region, where the schedule includes a one-hour world trade radio broadcast, a Regional Export Expansion Council meeting, a day-long World Trade Club seminar-luncheon-reception in Salt Lake City, and an early-bird breakfast meeting of the Ogden Chamber of Commerce.

Land-locked Nevada has slated a Rotary Club World Trade Luncheon in Carson City, Lions Club and Exchange Club Luncheons in Reno, and an Open House honoring the establishment of the world headquarters of a Nevada firm, Lynch Communications Systems, in Reno.

The New Mexico REEC and Albuquerque Chamber of Commerce will hold a joint World Trade Week meeting.

Businessmen Set New Guides For Dealing With Problems Of Consumers

Product Warranties, Responsive Approaches To Consumer Complaints Are Considered

Asserting that "written product warranties should be expressed in clear and simple language," James W. Button, Senior Vice President of Sears, Roebuck and Co., called on business executives throughout the country to "reexamine their warranty policies in light of consumer expectations."

Button, chairman of the National Business Council on Consumer Affairs Sub-Council on Warranties and Guarantees, joined Secretary Dent in a press conference at the Commerce Department last week, releasing two new reports—"Responsive Approaches to Consumer Complaints and Remedies" and "Product Warranties: Guidelines to Meet Consumer Needs."

Acknowledging the need for improvements in warranties and handling of consumer complaints by business, the NBCCA reports propose increased use of money-back guarantees and clearly written warranties to better serve consumers nationwide.

The report on consumer complaints makes three recommendations and, Button said, the key need is the proper and expeditious response to consumer complaints by trained personnel.

"Obviously, it is not enough to simply make recommendations," Button declared. "To be effective, to provide the needed assistance to customers, businesses must move to adopt the policies and practices we've outlined."

The Sears Roebuck executive, one of more than 100 businessmen who serve on the Presidential advisory panel, said the Sub-Council on Warranties and Guarantees specifically recognized "the inherent right of consumers to know the extent or lack of product warranties on a given product."

But, he noted, "too often, warranties are written by lawyers, for lawyers, with little thought given to the consumer's right to know and understand what a given warranty really means."

Warranties should be transferrable during the period of coverage, Button continued, and adequate warranty service should be provided to consumers.

Secretary Dent said one of the greatest single sources of consumer dissatisfaction "is that products often do not perform as expected.

"Unquestionably," said Dent, "the overwhelming majority of products purchased at the marketplace perform as expected."

For the millions of products purchased, the preponderance of problems that do occur are handled expeditiously, he continued.

"Yet, there is enough evidence of consumer dissatisfaction to warrant a high level of concern," Secretary Dent added.

"Industry should be taking action now to answer such concerns," he asserted, adding further that this is part of what the NBCCA is all about.

QUESTIONS FIELDED—*James W. Button, chairman of the National Business Council on Consumer Affairs Sub-Council on Warranties and Guarantees, answers reporters' questions on the recommendations in the report.*

Dent said the NBCCA will seek voluntary support of its recommendations from businessmen throughout the country. The Secretary will participate in this effort by sending the reports to members of the business community.

Recommendations of the Sub-Council on Warranties and Guarantees are:

• Product warranties should be effective for a period sufficient to allow any latent defects to surface.

Applications of this principle will vary greatly depending upon the physical characteristics of the product and the usual method and manner of use. Although the specific duration of any product warranty is an internal business decision, setting the duration of coverage long enough to permit sufficient use to identify hidden defects is strictly a minimum term demanded by considerations of basic fairness.

• Product warranties should be transferrable to subsequent owners during the period of coverage.

Restrictions on consumer usage may be reasonable but should be used only when the restriction has a real purpose. For example, consumers should not be misled to believe that mailing a registration card is a necessary precondition to obtaining the benefits of a warranty. In sum, any restrictions or other obligations imposed upon the consumer should be clearly defined and carefully explained in material available to the consumer at the time of purchase.

• Manufacturer should provide clear, complete, and simple product and warranty literature for use by sales personnel and by consumers.

• Written product warranties should be expressed in clear and simple language.

In carrying this out, manufacturers and retailers should consider that written warranties should specify the identity of the warrantor, the extent of parts coverage, whether labor is included, the specific duration of the warranty, where warranty service can be obtained, and obligations of the owner.

Further, the manufacturer and retailer should see that the format and headings are selected to aid balanced communication of the contents, and that exceptions and exclusions are given special prominence.

In short, the overall purpose of a written

warranty should be to "say what it means and mean what it says."

• Trade associations should establish and coordinate industrywide programs of warranty simplification and clarity.

An adequate association program of warranty simplification should include:

Standardization of the meaning of terms and affirmative claims used within the industry. Development of guidelines for the information to be conveyed in warranties. Development of guidelines for the appearance of warranties; such as "all language should be clear and simple, type size should be large enough to facilitate rapid reading and should be uniform throughout." And, establishment of independent consumer panels to which members of the industry can voluntarily submit current warranty statements and contemplated revisions for review and comment on their understandability.

In the final analysis, warranty simplification programs will succeed only if association members are urged to adopt the association's recommendations and only if each member takes the steps necessary to insure that the warranties on his products are readily available for inspection by the consumer prior to sale.

• Warrantors should systematically and periodically review warranty service policies and programs to eliminate unnecessary constraints inhibiting good service. Similarly, positive incentives should be adopted to encourage more effective warranty service.

This review should be based on the assumption that cutting costs on warranty service below those necessary to give quick and effective repair is one of the worst places this can be done. Consumers simply should not be given less than the full extent of their purchase, and responsive warranty service is probably the most critical element involved in terms of the customer's sensitivities and equity.

• Warrantors should regularly review warranty policies on compensation to servicing agencies to insure that they adequately cover all reasonable expenses.

This policy is an especially important part of responsible warranty administration by manufacturers, and it should be given careful, continuing attention by top management.

Delays in warranty service constitute one of the most annoying situations facing consumers, and often this is attributable to the servicer's lack of parts. In many instances, these delays cause considerable economic loss to the consumer, as when a freezer fails and the food it contains spoils for lack of immediate repair. Even when economic loss is not present, the inconvenience involved can be a major irritant.

SECRETARY ANSWERS — *Secretary Dent, at a Washington press conference, discusses functions of the National Business Council on Consumer Affairs, and the two reports it issued this month.*

As a standard procedure, the warrantor should require authorized servicers to maintain an adequate parts supply, and this should be made a condition of authorization. In addition, the warantor should continually evaluate his system of supplying parts to improve its efficiency, and to adapt to changing conditions.

The lack of qualified mechanics is one of the most serious problems facing warrantors and servicers alike. A number of actions can be considered by warrantors to improve the situation. These include design improvement, factory training, technical assistance, repair information and kits, and use and care manuals.

• Warrantors should establish direct working relationships with consumer protection agencies and assist these agencies in resolving consumer problems.

In addition to this practice for individual warrantors, trade associations are ideally suited to establish consumer complaint centers. One of the most successful efforts of this type has been the Major Appliance Consumer Action Panel (MACAP). MACAP was established by the Association of Home

Appliance Manufacturers, the Gas Appliance Manufacturers Association and the American Retail Federation following publication of a government report on warranties and servicing in the appliance industry. It is an autonomous group which collects complaint data and attempts to resolve the problems involved. Acting independently from the industry which supports it, MACAP has demonstrated a workable program which deserves imitation in other product lines.

• Warrantors should encourage and support autonomous industrywide consumer complaint review panels established by trade associations.

With the continued development of mass produced consumer goods, and the proliferation of large multi-purpose retail outlets, manufacturer-warrantors can become isolated from consumers of their products. In response to this problem, some manufacturers are encouraging dissatisfied consumers to call directly, rather than confine their personal contact to the retail or servicing outlet. This benefits both parties—the consumer avoids unnecessary contacts and the warrantor gets an immediate signal of trouble.

An effective system of this type requires the full support of top management and it should be placed at a high organizational level where the authority exists to insure that consumer problems will be solved.

"These outlines are not going to stop fraud—the crook" Button stated. However, many of those regarded as genius in small business simply are not experts in areas of warranties or handling consumer complaints. The recommendations in the reports should be helpful to these businesses.

"Where can you go to get such practical guidelines?" he concluded.

Complaints and remedies

Donald B. Smiley, chairman and chief executive officer of R. H. Macy and Co., is chairman of the Sub-Council on Complaints and Remedies.

Its recommendations are:

► The handling of consumer complaints should be swift, personalized, courteous, and as effectively managed as any other function of prime importance to the company, including increased personnel training in the handling of consumer communications, complaint followup and appropriate involvement by senior management.

Effective complaint management guidelines meriting the most serious consideration by every business enterprise are:

Consumer complaints should be coordinated by specialists within each company. Management should provide adequate training to all personnel in direct public contact concerning the accepted techniques and procedures of handling consumer complaints.

For items of large initial consumer cost, complaint disposition should be audited to assure that satisfaction has in fact been given. Senior management should regularly review the volume, nature, and disposition of consumer complaints.

Trend analysis and other summaries of complaint data should be developed periodically in order to identify emerging problems and opportunities for improvement. Consumers should be provided with information regarding available channels of redress, either at the point of purchase or on the package, in use instructions or in other literature accompanying the product or service.

► The moneyback policy should be fully explored by companies not now offering it, and should be adopted wherever feasible as a means to resolve directly disputes.

Currently, the use of refund policies is limited for the most part to industries offering frequently purchased products of low unit price to large food and general retailers. A broader range of consumer industries should consider adoption of refund policies as a general redress for consumers.

The question of feasibility, of course, is one that must be examined by each industry or company on its own. Such an examination should be conducted searchingly and objectively, including potentially higher consumer prices, contemporary attitudes regarding the mutual obligations of buyers and sellers, and the intangibles of public repute and consumer good will.

► Where refunds are not a practicable course of action, the feasibility of third-party complaint settlement procedures such as mediation and arbitration should be considered by sellers as an alternative form of redress.

The National Business Council for Consumers Affairs has issued nine reports covering Advertising and Promotion Practices, Packaging and Labeling, Tire Safety, Product Warranties, Complaints and Remedies, and Consumer Credit. Two more—on Product Safety, and Performance and Service—are in production.

Rail-Marine Interface Key To Effectiveness Of Intermodal Transport

Port Of New York Studied For Reducing Cost, Time, Distance; Enhances U.S. Competitiveness

Better coordination of container movements at critical rail-marine transfer points will increase the efficiency of intermodal transportation, a recent study by the Maritime Administration concludes.

"The interface of marine terminal operations with those of the rail carriers is a key to improving the effectiveness of the intermodal system," the new study concludes.

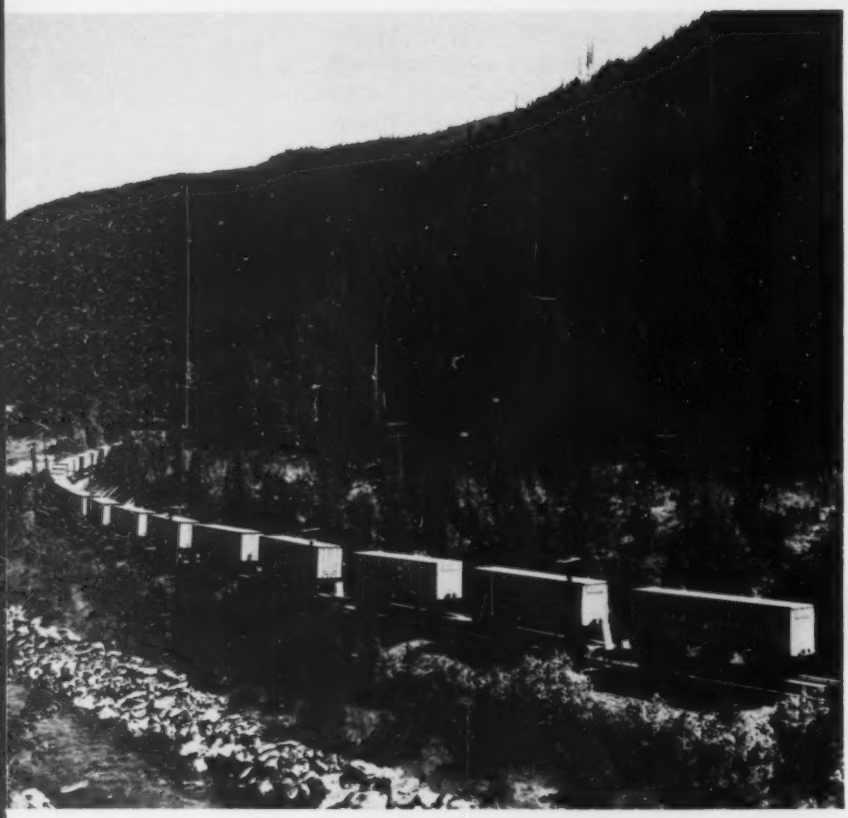
Based on a study of the rail-marine interface in the New York-New Jersey port complex, the effort suggests several time and cost saving improvements that could be made in transferring containers between marine and rail carriers. These include simplification in the processing of containers and their associated documents, and more comprehensive understanding by shippers and consignees of the alternatives available for transferring their containers between railroads and shipping lines.

The Port of New York, a leader in intermodal transportation, presently supports eight rail piggyback and container terminals and ten U.S. flag ocean carrier marine container terminals, as well as several foreign vessel operator terminals.

Containerized cargo moving through the New York port more than doubles the volume of any other port in the U.S. In 1971, the number of containers—mixed units of standard and nonstandard containers—inbound into the New York port was 196,178. The entire North Atlantic had 265,272. Los Angeles-Long Beach, nearest competitor to New York in terms of numbers, received 75,364 containers that year.

In outbound foreign oceanborne trade, New York led the Nation with 148,344 containers in 1971. The entire North Atlantic ports handled 234,100 outbound containers.

The great volume of marine containers



BY RAIL — *A load of Sea-Land containers enroute from Japan to Chicago is shown aboard the Milwaukee Road's "Thunderhawk" fast freight in the Bitter Room Mountains of Montana.*

moving through the Port of New York has created rail marine transfer problem—poor transfer service and high transfer cost—the report says, and examines five potential remedies.

Poor service is brought about by truck delay and detention which occur at rail terminals, in transit, and at the marine terminal, according to the study. Rail terminal delays appear to be minimal. Congestion enroute is a more serious factor because average transit time is figured into the base rate.

The major problem at the New York port complex so serious on occasion that base transfer costs double or even triple because of detention charges billed to the shipper or consignee by the trucker shifting a container between rail and marine terminals.

Transfer rates between terminal pairs were found to vary widely, depending upon the type of trucker and his method of determining rates. There are indications that in certain instances, high rates are quoted to discourage transfer business. The New York City commercial exempt zone is free from outside rate regulations, so many variations and individual arrangements are in effect, making it impossible to determine a fixed cost.

A number of avenues of potential im-

LOADING AND UNLOADING — *Time wasted or misspent in the process of shifting containers from rail to marine is the subject of a new Maritime Administration study. This Sea-Land operation shows a truck being used to make the cargo shift from rail to ship—economy and speed are objectives.*

provement are available, not all of them practical at the present time because of physical port and rail limitations.

For example, the direct rail marine transfer from trackage running directly into marine terminals is one solution. Its cost to the railroad interns of installing additional trackage, the additional delay of cars in being switched, unloaded, and reloaded and the basic question of financial return to the railroads based on projected container volume levels all tend to make this remedy impractical at present.

Potential remedies

Other potential solutions evaluated in the report are:

• **Documentation simplification**—A standard delivery order for the Port of New York has been developed and is being implemented at the present time. The report says this is the type step forward which can help expedite transfer hauls within the port area.

There are a number of other documents which bear consideration for standardization, such as load identification markings on the particular containers, weight certificates (now required by the U.S. Department of Labor), and interchange inspection forms.

"Any document standardization leading to more rapid recognition and processing at terminal gates or in receiving or delivery offices would be of benefit in cutting down marine terminal delays," the report asserts.

• **Receiving and delivery procedural improvements**—Actual physical processing of full container loads as they are being delivered to or picked up from marine terminals varies at each of the nine terminals in the New York complex. Uniformity of receiving and delivery procedures should be attempted on all marine container terminals as far as physical limitations permit. Drivers who experience similar processing methods at all terminals, where they deliver or pick up containers, would know what to expect, and would be able to help expedite themselves to a much greater degree.

• **Strategic placement of consolidated rail terminal facilities**—Exclusive container rail terminals adjacent to a marine terminal complex could foster such possibilities for improved rail marine transfer and inland line haul as: Unit train development for container traffic on a much larger scale than at present.

Other possibilities include encouraging a group of local truckers to specialize in rail-marine transfers, thus permitting them to use fewer trucks to haul the same number of containers. This would result in reducing marine terminal congestion and delays, and with careful planning and implementation, reducing of transfer expenses for the shipper or consignee.

RAILS NEAR BERTHS — *New container berths at Dundalk Marine Terminal in Baltimore means new rail lines close to the bulkhead to provide direct ship loading or discharge.*

• **Shipper-consignee education and guidance**—While more efficient, less expensive and more reliable rail marine transfer methods may exist within the Port of New York, the average Midwest shipper or consignee is generally unaware of most factors except cost and is completely dependent on the freight forwarder or customs house broker. The report advocates that individual steamship companies become aware of all the available methods of rail marine transfer within the port area for their particular terminals, and educate and recommend to Midwest customers the least expensive and most efficient methods.

Copies of the report on "Rail and Marine Interface at the Port of New York," COM 73-1058 are available from the National Technical Information Service, 5285 Port Royal Rd., Springfield, Va., 22151.

DOMESTIC BUSINESS REPORT

- **Nation's energy needs can be met by innovative research**
- **Hawaii requests synthetic natural gas plant in foreign trade zone**
- **Total value of new construction at $138.2 billion**
- **Better educated, mobile Americans in marketplace**

Dent Urges Progress On Energy Resources

Noting that this country is "continually finding additional energy resources other than proven reserves," Secretary Dent has called for a policy of "reasonable consideration of the environment that will preserve American jobs until the problems in this area can be resolved permanently.

"It is important that our concern for the environment not become so zealous that it is pursued at the expense of American jobs," the Commerce Secretary told members of the Tampa Chamber of Commerce.

He said the development of deepwater ports is essential for increased United States fuel supplies.

Furthermore, he continued, it is estimated that 40 percent of American energy reserves are located on the outer-continental shelf and "we must go forward with offshore drilling with due regard for environmental considerations.

"It has been estimated that the proven reserves in the Alaskan oil fields could replace one-third of U.S. oil imports were the Alaskan pipeline functioning," said Dent.

Coal is plentiful

"We all know that coal is plentiful and the United States leads in the technology of atomic power for energy," he said further. "However, it now takes twice as long to build a nuclear power plant in the United States as it does in France because of the hurdles of court battles and other problems builders must face."

Yet, he stated, atomic power is the safest energy system yet developed. There has never been an accident associated with the production of nuclear energy.

Asserting that President Nixon's energy message is to make certain that a problem does not become a crisis, Secretary Dent said the Administration's approach is to create "additional incentives for the development of the energy resources of the United States while simultaneously removing unnecessary barriers to the imports of energy resources from abroad."

Dent also noted that the economy today "is very healthy and prospects for the future are good.

"We have high employment, the Gross National Product is up 8 percent over 1972, real disposable income is up 5 percent, twice the normal average." He said there is

a high rate of consumer spending and widespread prosperity.

"Our problem today is how to temper this rapid growth to a more normal rate of growth without encouraging negative trends in the economy." The Commerce Secretary concluded that there are indications that inflationary surges in February and March are coming under control.

"The President," he said, "has taken bold actions to bring food prices under control and it appears that the rate of inflationary surge has peaked."

Nation's Energy Needs Can Be Met By Innovative Approach To Research

Meeting the Nation's energy needs in the years ahead will demand a new and innovative approach to energy research and development by both government and industry, Robert E. Shepherd, Director of Commerce's Office of Energy Programs, has asserted.

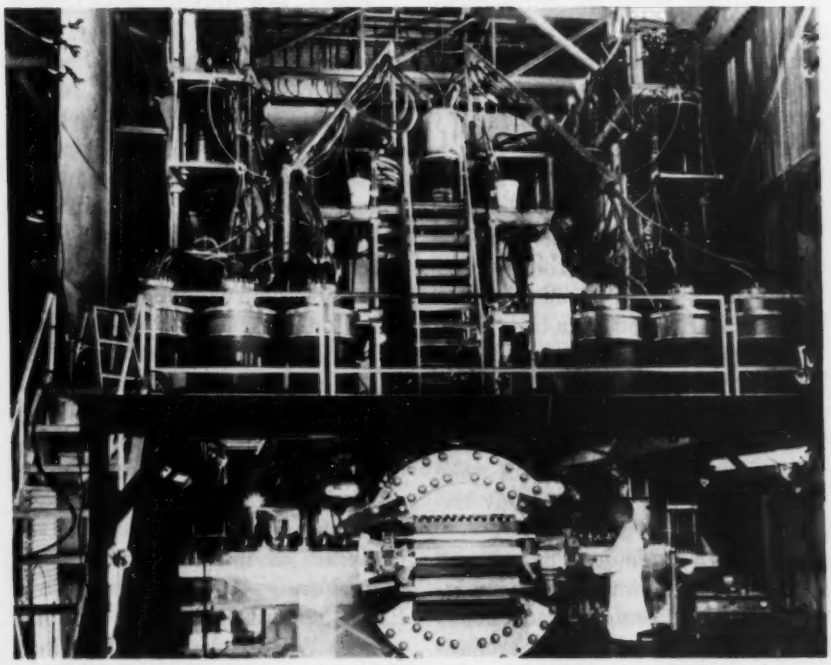
"We will have to meet most of our energy needs during the next few years from conventional uses of fossil fuels," Shepherd said in a recent address at the Oil Daily's Forum on Synthetic Energy in New York, "but if we apply our scientific and technical skills in the energy area we can assure new sources of energy for the future."

This will call for increased outlays by industry as well as the support of new research and development projects by the Federal government, Shepherd stated, adding that it will also call for development of new modes of cooperation between industry and government at all levels—local, state, and Federal.

"For near term results, we need to concentrate on developing ways to use our vast coal resources," Shepherd continued. "We still have a long way to go before coal liquification or coal gasification projects will give us large quantities of energy at commercial prices, but the need to harness our enormous reserves of coal in an environmentally acceptable manner makes this a very high priority area for current research and development work."

Shepherd said that the government will help in developing the technology for coal liquification and gasification, but industry should lead the way in this vital area.

"If industry demonstrates specific ways in which additional government funds can be used in research and development, every effort will be made to see that these funds are made available," he said further. "The President has doubled the Federal government's energy research and development budget over the past four years, has committed his Administration to providing additional research and development funds as rapidly as they can be effectively spent, and has urged all state utility commissions to consider permitting increased research and development expenditures to be included in utility rate bases. It now is up to in-



NUCLEAR STUDY—*The Scylla IV assembly for Project Sherwood studies of controlled thermonuclear fusion is shown at the Atomic Energy Commission's Los Alamos Scientific Laboratory, New Mexico. Fusion, one of the long-term answers to the Nation's energy problems, is under extensive research.*

STORAGE CELL—*Laboratory test version of the Lithium-Sulfur Storage Cell expected to deliver ten times more energy than a lead-acid battery.*

dustry to demonstrate a similar commitment."

Shepherd also stressed the need to make an equal commitment to exploring new and innovative ways to conserve the energy the Nation develops.

"We must get behind the President's call for a new energy conservation ethic in America," he stated. "The energy saved through conservation and through more efficient use can contribute just as much to our national health and well being, as can the development of new energy sources.

"In fact, energy conservation may—by stretching the point a little—be termed the best, the cheapest and the most environmentally acceptable new energy program of all."

Leadoff speaker

Shepherd was the leadoff speaker at the one-day forum. Others included Herman Kahn, director, The Hudson Institute, who discussed "Alternative Energy Solutions," and Clark P. Lattin, Jr., president, M. W. Kellogg Co., "The Last Roadblocks To New Energy Projects."

Dr. Frederic A. L. Holloway, Vice President for Science and Technology, Exxon Corp., discussed "Synthetic Fuels, Why Are They Needed—Which Are Important—When Can They Be Produced?" and H. C. Bailey, Vice President for Petroleum and Minerals, The Chemical Bank, New York, talked about "New Energy—How It Will Be Financed."

"Energy From Shale Oil and Tar Sands—A Major Resource?" was the topic of H. E. Bond, Vice President, Synthetic Crude and Minerals Division, Atlantic Richfield Co., and Jack Huebler, Vice President for Research, Institute of Gas Technology, discussed "The Latest Developments in Coal Gasification."

—Office of Energy Programs, Bureau of Resources and Trade Assistance

Hawaii Requests Synthetic Natural Gas Plant In Foreign Trade Zone

Hawaii has requested approval of the Foreign-Trade Zones Board for establishment of a synthetic natural gas (SNG) plant within Foreign-Trade Subzone 9A, located on the Barbers Point industrial park site at Ewa, 22 miles west of Honolulu.

The state's application was submitted by its Department of Planning and Economic Development, which supervises Hawaii's general purpose foreign-trade zone at Honolulu and the recently established Ewa oil refinery subzone.

The subzone oil refinery is operated by Hawaiian Independent Refinery, Inc., (HIRI), a subsidiary of Pacific Resources, Inc., and the SNG plant is to be operated by Gasco, Inc. (GASCO), a sister corporation. Feedstocks for the planned 150,000 therm-per-day gas plant will consist primarily of naptha supplied by the subzone oil refinery.

GASCO is a public utility having distribution facilities throughout Hawaii. The gas plant which it presently operates near downtown Honolulu would be replaced by the environmentally purer new facility as the firm's basic plant.

Construction of a facility of this type within a foreign-trade zone requires board approval and this application represents the first request for a facility for manufacturing gas. It comes at a time when many companies are considering alternative methods of supplementing natural gas supplies partly through the conversion of liquid feedstocks. The board will take into account the energy policy implications of the proposal.

A foreign-trade zone or subzone is a special Customs facility designated by the Foreign Trade Zones Board into which foreign merchandise may be brought without the immediate requirements of a formal Customs entry. They are operated by qualified corporations as public facilities in or near ports of entry and are supervised by U.S. Customs. Foreign goods may be stored, exhibited, assembled, used in manufacture, or otherwise processed, and duties need not be paid unless and until the goods enter U.S. Customs territory, in which case the importer can choose the original or finished status of the product as that on which duties will be paid.

The economic advantages of conducting the SNG operation within a foreign-trade zone, according to GASCO, is that prior to entering Customs territory foreign petroleum feedstocks will be converted into a product that is nondutiable and exempt from license fees under the revised oil import program. GASCO states that its consumers would benefit from the production cost savings.

Foreign trade zones

There are foreign-trade zones operating in New York City, New Orleans, San Francisco, Seattle, Mayaquez, Puerto Rico, Toledo, Honolulu, and Bay City, Mich.

Recently approved zones are expected to go into operation in McAllen, Tex., Little Rock and Kansas City. Another proposal for a foreign-trade zone in Sault Ste. Marie, Mich., is expected to be acted on by the board shortly.

In a Federal Register notice the board invited written comments on the Hawaiian proposal. Copies of the application and a supplemental draft environmental impact statement will be available for public inspection for a 30-day period at the office of the Executive Secretary, Foreign-Trade Zones Board, Room 2203, Department of Commerce, Washington, D.C., and at the office of the District Director, Bureau of Customs, 228 Federal Building, in Honolulu.

Total Value Of New Construction Reaches $138.2 Billion In March

Total value of new construction put in place in March 1973 was at a seasonally adjusted annual rate of $138.2 billion.

Bureau of the Census reports that this compares with the revised rate of $135.5 billion in February 1973 and $122.9 billion in March 1972.

For the three months ending March 1973, the seasonally adjusted annual rate of total new construction put in place amounted to $136.5 billion, 12 percent more than the annual rate for the three months ending March 1972. The value of new construction in March 1973, with no adjustment for seasonal variation, amounted to $10.0 billion.

The Census Bureau said month-to-month changes, often reflect movements which are primarily irregular, and it sometimes takes several months to establish the underlying trend.

The seasonally adjusted annual rate of total new private construction in March 1973 was $103.6 billion, 1 percent more than the revised estimate of $102.7 billion in February 1973. The seasonally adjusted annual rate of total new private construction put in place during the three months ending March 1973 amounted to $102.5 billion, 6 percent more than the annual rate for the previous three months. The value put in place in March 1973, with no adjustment for seasonal variation, was $7.5 billion.

Private residential building construction was at a seasonally adjusted annual rate of $60.1 billion in March 1973, 1 percent more than the revised estimate for February 1973. The value put in place during March 1973, with no adjustment for seasonal variation, was $4.3 billion.

Private nonresidential building construction during the month of March was at a seasonally adjusted annual rate of $2.8 billion, 3 percent more than the revised estimate for February 1973. The value put in place during March 1973, with no adjustment for seasonal variation, was $2.1 billion.

The seasonally adjusted annual rate of total new public construction put in place during the three months ending March 1973 amounted to $34.0 billion, 6 percent more than the annual rate for the previous three months.

—Census Bureau

Ombudsman For Business

Businessmen who need assistance in their dealings with the Federal Government have a central office in Washington, D.C., to write or call for information, suggestions, or even for registering complaints — the Commerce Department Ombudsman for Business.

All inquiries should be addressed to the Ombudsman, Thomas E. Drumm, Jr., Special Assistant to the Secretary, U.S. Department of Commerce, Washington, D.C. 20230, or call 202-967-3178.

Better Educated, More Mobile Americans Set New Market Trends

Americans are becoming better educated and more mobile, according to three new Census Bureau reports that analyze results of the last census.

(Businessmen, especially those in the retail trades, are constantly following mobility patterns and education trends in attempts to spot new markets and develop markets of the future.)

Movement of Americans from region to region, from state to state, is statistically illustrated in two reports which note that 29.4 million native born persons were residing outside the regions in which they were born, or one out of six native Americans.

Only the West experienced a net gain of whites through interregional movement, 8.5 million persons. Only the South showed a net loss of blacks, 3.2 million.

A picture of recent mobility can be obtained by looking at the population five years and older by residence in 1965 and 1970 and by state of birth. In this group there were 5.5 million native Americans living outside the state of birth when the 1970 census was taken and were in still a different state in 1965. On the other hand, 111 million native Americans, or 60 percent of the total, were living in the state in which they were born both in 1965 and 1970.

The more education a person has and the higher he is on the job ladder, the less likely he is to remain in his native state. In the population 25 and older, only 38 percent of those with five or more years of college were living in the state of birth in both 1965 and 1970. In contrast, 52 percent of those with less than an elementary school education still lived in their home state.

The third new census report details the increasing education of Americans. Eight out of 10 persons 20 and 31 years old have at least a high school education.

That Americans are increasingly becoming better educated is evidenced by comparing the years of school completion by those 20 and 21 years with those in older age groups. For example, among persons 30 to 34 years old, 69 percent had finished high school, while 40 percent of those 55 to 64 years old

and only 24 percent of those 75 years old had done so.

Only half of the population 25 years and older have completed high school. In urbanized areas, adults living outside the central cities are more likely to be high school graduates, to have attended college and to have graduated from college than are those living inside central cities.

Sixty-two percent of persons 25 and older living in the fringes of urbanized areas had a high school education or more in 1970, 35 percent had completed four years of high school but no more, 10 percent had completed one to two years of college, and 14 percent had completed four or more years of college.

Inside cities

Inside central cities, 50 percent of the adults had at least a high school education, 29 percent had completed exactly four years of high school, nine percent had completed one to two years of college.

The proportion of workers in professional and managerial occupations is greater at each successively higher rung of the educational ladder.

The proportion of women working in professional and related occupations was somewhat lower than for men at all educational levels except for college graduates. Women who had completed four years or more of college were as likely as men with the same education to be professional or managerial.

Copies of the reports—"State of Birth," PC (2)-2A, and "Lifetime and Recent Migration," PC (2)-2D, are available from the Government Printing Office, Washington, D.C. 20402, or from Commerce District Offices in major cities. Price of the former is $3.20 and the latter, $5.05.

Copies of "Educational Attainment," PC (2)-5B, are available for $3.75 each from the Government Printing Office or from Commerce District Offices.

'Bullish' Climate In Small Business Community Marked By Record SBA

More than 20 percent of the total dollars loaned to small businesses by the U.S. Small Business Administration in its 20-year history occurred during calendar year 1972.

SBA Administrator Thomas S. Kleppe said the 12-month record was more than $1.9 billion, compared to a cumulative total of $9.4 billion since 1953. The past year eclipsed 1971 by 49 percent.

"It is an indicator of the bullish climate in the small business community today," Kleppe commented. "The small businessman is keen to start new ventures and to expand his production. It means a better employment picture. This agency's loan program alone resulted in some 338,000 new jobs last year."

Other 1972 records were:

- The Nation's banks and other lending institutions invested $1.7 billion in SBA loan programs, an increase of 56 percent over the previous year.
- SBA responded to a record number of natural disasters—87 in 41 states. The Agency's aid in rebuilding damaged businesses and homes resulted in 198,000 loans for $1.2 billion, a rise of 221 percent over 1971.

Hurricane Agnes, which resulted in the most destructive flood in American history, accounted for 125,000 loans for $995 million by the end of the year, and loans continued into 1973.

- Small business received 29 percent of all Federal government procurement during fiscal 1972, that is $12.6 billion in prime and subcontracts, a gain of 10 percent in dollars.
- Small Business Investment Companies (SBICs), the SBA-licensed venture capital firms serving small business, made $169 million in financings, up 8 percent for their fiscal year. SBIC assets stood at $673 million, a gain of 10 percent.
- The agency's Local Development Company program, designed primarily to develop small communities and rural areas, funded 760 projects for $91 million, a 36 percent increase.
- Loans to minorities amounted to $309 million, compared to $231 million in 1971, an increase of 34 percent. Sixteen percent of the total SBA loans dollar went to minorities during the year.
- SBA's portfolio of outstanding loans totaled 304,000 accounts for $4.6 billion on Dec. 31. This was 64 percent greater in value than at the end of the previous year.

—Small Business Administration

Nickel Set Aside For Defense Remains Same

The second quarter 1973 set-aside for primary nickel for defense purposes is 15 percent of the producers' average monthly shipments during the last six months of 1968. The percentage is unchanged from the first quarter 1973, according to the Bureau of Competitive Assessment and Business Policy.

The set-aside applies to defense-rated orders for delivery during each of the months of the second quarter of 1973. The set-aside order was issued to four U.S. suppliers—The International Nickel Co., Inc., of New York, the Hanna Mining Co. of Cleveland, the Kaiser Aluminum and Chemical Corp., of Oakland, Calif., and the N. C. Trading Co., New York.

The order also requires each company to report its monthly shipment of nickel to fill defense-rated orders during each month of the quarter no later than the 15th of each month following the month in which shipments were made.

Puerto Rican Business Group Gets Contract

The Puerto Rican Development Foundation, Inc., of San Juan, Puerto Rico, has received a one-year $150,000 contract from Commerce's Office of Minority Business Enterprise (OMBE) to assist in the development and expansion of minority businesses in Puerto Rico.

"The contract represents the first of its kind in Puerto Rico and outside the continental United States," said Alex Armendaris, OMBE Director. "The development of minority business is one of the priority goals of President Nixon, and I am confident that with this first step, a solid beginning has been made toward stimulating minority business ownership in Puerto Rico."

Jose A. Francheschini is the president and executive director of the Puerto Rican Development Foundation.

The organization will provide business assistance to minority entrepreneurs.

The Foundation will perform such functions as business plan review, feasibility studies, financial packaging, and ongoing management and technical assistance in the San Juan area, and throughout Puerto Rico.

Special program

The Puerto Rican Foundation contract is part of OMBE's minority business development organization (BDO) program.

BDO's are community-sponsored organizations offering business support services free of charge to minority clients, Armendaris explained.

To date, OMBE has funded more than 150 business development organizations across the country.

—Office of Minority Business Enterprise

CONTRACT SIGNED—*Jose A. Francheschini (center), president and executive director of the Puerto Rican Development Foundation, signs contract making the Foundation the first business development organization in Puerto Rico. Others, from left, are Herman Rivera, OMBE field operations division; Walter L. Sorg, Assistant Director of OMBE for private programs and OMBE Director Alex Armendaris.*

Long Term Funds, Equity Capital Expanded With Three New MESBICs

More than $35,000,000 in long term loan funds and equity capital became available to socially and economically disadvantaged businessmen with the licensing of three new Minority Enterprise Small Business Investment Companies (MESBICs) in New York City, Dayton, Ohio, and Hartford, Conn.

Cominvest of Hartford, Inc., licensed to operate in the New England area, has an initial capital of $300,000. It can leverage its funds through low interest Small Business Administration loans and participation by banking sources to as much as $4.5 million in loans or equity participation.

In New York City, the CBMC Capital Corp. was licensed with $1 million in capital. CBMB can provide as much as $300,000 of its own funds to any single venture—or as much as $1.5 million in total funding for a single business.

When fully leveraged with $3,000,000 in SBA loans of preferred stock, CBMC can provide as much as $20,000,000.

The Dayton MESBIC, licensed with $500,000 of private capital, has among its goals assistance to small businessmen participating in redevelopment of downtown commercial centers in Dayton. Fully leveraged, the Dayton MESBIC can provide up to $10,000,000 in equity and working funds.

There are now 57 MESBICs licensed by the Small Business Administration, providing equity funds and long term loans throughout the country. Many corporations and financial institutions have found MESBICs to be an excellent investment in terms both capital and economic growth for specific geographic areas.

For more information, contact the MESBIC Development Staff, Office of Minority Business Enterprise, Room 4039, Department of Commerce, Washington, D.C. 20230. Phone: 202-967-3165.

Business Development Is Southwest Group's Work

In a small town in southwestern Colorado, Indian artisans are producing authentic hand-printed textiles much the same as their ancestors have done for centuries.

Unlike their ancestors, these contemporary craftsmen are marketing their wares through a modern firm, Nizhonie, Inc., in Cortez, Colo., near Mesa Verde National Park.

On a corner of the Navajo reservation in Arizona, Indian sheepmen now sell their livestock at auction through a community-owned cooperative. The co-op replaced the old system of transporting the animals to a trading post for sale at a fixed price. It has helped to increase significantly the sales and profits for the Navajo's number one economic commodity.

These advances are due in large part to an organization—Uplands, Inc. — headquartered in Durango, Colo. It was organized in 1969 with the general goal of promoting economic development in the area of the Southwest known as the Four Corners Region.

Last year Uplands contracted with the Office of Minority Business Enterprise to serve as a local business development organization. Business development organizations are a primary tool in the Commerce Department's minority enterprise program. They offer business support services to minorities, including business plan review, feasibility studies, financial packaging, and ongoing management and technical assistance.

Grassroots work

Uplands' director Gary M. Peterson, a former businessman, said the organization is essentially a grassroots operation which began with a case by case approach to economic development.

"But we are adding new directions in the area of short and long range economic development planning," Peterson explained further.

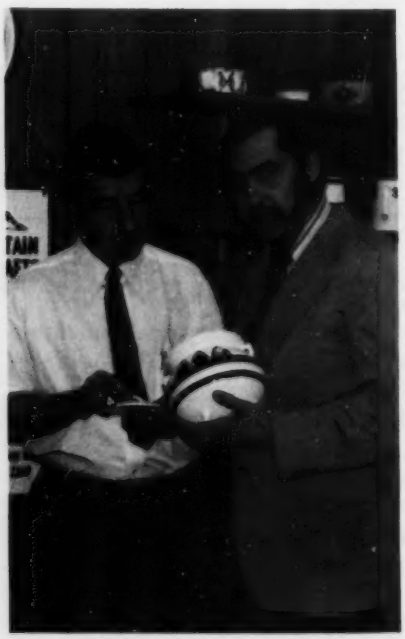
Uplands has undertaken a monumental task in promoting business development in an area which is primarily rural and is scattered across 31,402 square miles and some 11 counties. Indians and Spanish surnamed persons comprise about 30 percent of the area's population, but account for roughly two-thirds of the region's job gap and three-fourths of the income gap.

A typical Uplands-assisted firm is Ute Mountain Pottery, on the Mountain Ute Reservation at Towaoc, Colo. Until recently the only industry on the reservation was stock grazing. Then three Indian citizens set up Ute Mountain Pottery, a ceramics plant, but failed. The company was later reopened and incorporated with the intention of making it a cooperative, but it went bankrupt.

Finally, Uplands stepped in and provided management assistance and helped secure a Small Business Administration loan. Today the successful firm operates under an all-Indian board of directors and employs 30 people.

—OMBE

MARKETING TECHNIQUES—*John Medina (left), associate director of Uplands, Inc., consults with Keith Austin, owner of Nizhonie, Inc., concerning marketing techniques. The two men are looking at one of the displays of Indian arts and crafts being marketed by the Indian businessmen.*



QUALITY CONTROL — *Gary Peterson (right), of Uplands, Inc., consults with William Houston, general manager, Ute Mountain Pottery Corp.*

New Book Answers Where To Find Right Consultant

Federal agencies and private companies can make greater use of the professional capabilities and unique resources offered by minority consulting firms with a new publication of the Office of Minority Business Enterprise (OMBE).

The second edition of the National Roster of Minority Consulting Professional Firms lists 310 minority-owned professional firms with a wide range of capabilities and functions designed to serve the varied needs of business and Government.

Services listed

The professional, analytical, scientific and technical services offered by these organizations are incorporated into 22 broad functional categories that provide, along with the service, the added dimension of built-in minority sensitivity and expertise where required.

Consulting service areas included in the roster are accounting, advertising, architecture, black community, business development, communications, computer sciences, economic development, education, family planning, finance, health services, housing, Indian community, insurance, managerial and technical assistance, manpower, marketing, public relations, science and technology, security systems, Spanish community and urban sciences.

New format

Format and arrangement of material has been designed to facilitate easy reference for procurement officials and requires minimal effort in locating a particular firm or a specific service.

Preceded by an alphabetical listing of the firms, the body of the roster lists company name and address, along with telephone number, principal individual contact, legal structure of the firm, date established, geographic extent of service, area of expertise and a short statement concerning each consultant's capabilities.

For government officials, an index arranged in accordance with established Federal regions is provided to allow for ready location of minority consulting resources within each region. A state index lists firms located in 115 cities in 39 states. A functional index arranged under 22 categories pinpoints specialized capabilities.

And, an additional general index furnishes the reader with a key to specific terms designating functions as used in the capability statement of each firm.

The National Roster of Minority Consulting Firms is available on request from the Public Information Division of the Office of Minority Business Enterprise.

—Office of Minority Business Enterprise

U.S. Green Coffee Imports Decline In Quantity, Rise In Value Compared To '71

U.S. green (crude) coffee imports in 1972 totaled 2,746 million pounds valued at $1,181,000. This represented a decline of 4.2 percent in quantity and a rise of 1.2 percent in value compared to 1971 imports, which amounted to 2,866 million pounds valued at $1,167,000.

Commerce's Bureau of Competitive Assessment and Business Policy said soluble coffee imports totaled 56.3 million pounds valued at $78.9 million in 1972, increases of 57 percent in quantity and 51 percent in value from the 1971 imports, which were 35.9 million pounds valued at $52.2 million.

Detailed coffee trade statistics including country of origin, country of destination, and cumulative current year data, are available upon request from the Consumer Goods and Services Division, Bureau of Competitive Assessment and Business Policy, Commerce Department, Washington, D.C., 20230.

—BCABP

Shoe, Textile Firms Certified Eligible For Trade Assistance

A South Carolina textile manufacturer and a New Hampshire shoe producer have been certified eligible to apply for adjustment assistance under provisions of the Trade Expansion Act of 1962.

Dover Shoe Manufacturing Co., of Somersworth, N. H., producer of women's dress and casual shoes, and Arkwright Mills, Inc., Spartanburg, S. C., were certified by the Commerce Department.

The actions resulted from separate petitions by the firms to the Tariff Commission requesting a determination of eligibility to apply for adjustment assistance.

The companies may now apply for assistance by submitting an adjustment proposal. Types of assistance—technical, financial and tax—are authorized by the program.

Before any assistance is granted, however, the firms must meet all applicable statutory requirements of the Trade Expansion Act of 1962. These include a requirement that its adjustment assistance proposal be certified by the Secretary of Commerce to be reasonably calculated materially to contribute to the economic adjustment of the firm; to give adequate consideration to the interests of the workers of such firm adversely affected by actions taken in carrying out trade agreements; and to demonstrate that the firm will make all reasonable efforts to use its own resources for economic development.

—Office of Trade Adjustment Assistance, Bureau of Resources and Trade Assistance

New Veterans Number Over Four Million—Mostly From Vietnam Era

Four and a half million veterans were added to the Nation's total as a result of the Vietnam conflict.

The new U.S. veteran total is 28.1 million, according to a new Census Bureau report. All but a handful of the 1960-70 additions were Vietnam veterans. The exceptions were Korean veterans still in the service in 1960 and those in the Armed Force between the Korean and Vietnam conflicts.

Old soldiers—World War I—decreased by 39 percent during the decade, from 2.6 million to 1.6 million. All of the World War I veterans are more than 65 years old.

World War II veterans make up the biggest veteran population of all wars. They, along with Korean veterans (a total of 18 million), are mainly in their middle years, 35 to 54, and many are in the upper income bracket, earning $15,000 or more annually.

Ninety-seven percent of all former servicemen in the labor force (23.7 million) are holding jobs, the Census Bureau report shows. Of the 3.6 million not in the labor force, many are retired, or are under 25 years old and enrolled in school. Others have recently been discharged.

Forty-five percent of employed veterans are white collar workers, five percentage points more than all employed men in the United States. Their average income in all categories was higher too, with veterans making $8,385 annually, compared to an average of $6,783 for U.S. men 18 years old or older as a whole.

Families with veterans as heads also have an edge in income over the general population with an average income of $11,500. The figure for all families with a male head is a little over $10,000.

Single copies of the report, "Characteristics of Civilian Male Veterans for the United States: 1970" PC (S1)-33 are available from the Superintendent of Documents, U.S. Government Printing Office, Washington, D.C., 20402, or from Commerce District Offices in major cities.

—Census Bureau

Twenty Organizations Help In Job Fairs

Representatives of 20 U.S. companies, trade associations, labor unions and government agencies will participate in Job Information Fairs for American servicemen in Europe May 14-25.

The fairs, sponsored by the National Committee on Jobs for Veterans, in cooperation with the Department of Defense, are designed to give servicemen ready for discharge from the military the latest information on the job market back home. The latest series of job counseling sessions will take place on bases in England, Germany, and Spain. Three other fairs have been held in the last 18 months—two in Europe and one in Asia.

Participating companies and organizations are Standard Oil of California, the National Association of Home Builders, United Parcel Service, Xerox Corp., National Association for the Advancement of Colored People, General Electric, the International Brotherhood of Teamsters, Cummins Engine, General Motors, Aetna Life and Casualty Co., the U.S. Office of Education, the Marriott Corp., American Can Co., Newport News Shipbuilding and DryDock Corp., Sears, Roebuck and Co., McDonalds, and U.S. Steel Corp.

Four hundred military personnel are expected to attend each of the 16 sessions scheduled for Lakenheath AB, England; Berlin, Frankfurt, Kaiserslautern, Germany, Stuttgart, Germany and Rota, Spain.

Calendar For Businessmen

May 16—Joliet, Ill.—Business Opportunity Federal Procurement Conference, sponsored by U.S. Rep. G. M. O'Brien.

May 19 — Pascagoula, Miss. — Launching of the Delta Norte, by Avondale Shipyards for Delta Steamship Lines, sponsored by Mrs. Frederick B. Dent.

May 23-24 — Cleveland — Business Opportunity Federal Procurement Conference, sponsored by Cleveland Growth Association.

June 6-10—Grand Rapids, Mich.— National Economic Development Workshop, Consumer Fair and Minority Business Fair. For information, call Ulysses Champion. Phone: 616-452-1548.

June 8—Rockville, Md.—Business Opportunity Federal Procurement Conference, sponsored by U.S. Rep. Gilbert Gude.

June 15 — Bridgeport, Conn. — Business Opportunity Federal Procurement Conference, sponsored by U.S. Rep. S. R. McKinney.

June 19-23 — Chicago — National Association of Minority Contractors fourth annual convention, hosted by United Builders Asso- tion contact Sandra Dixon or ciation of Chicago. For informa- Dorothy Foster at 312-225-0600.

June 22 — Rockland County, N. Y. —Business Opportunity Federal Procurement Conference, sponsored by U.S. Rep. B. A. Gilman.

June 28 — Melbourne, Fla. — Business Opportunity Federal Procurement Conference, sponsored by U.S. Rep. Lou Frey, Jr.

July 26 — Duluth, Minn. — Business Opportunity Federal Procurement Conference, sponsored by U.S. Rep. John A. Blatnik.

June 25—Kings Point, L.I., N.Y.— Commencement exercises of the United States Merchant Marine Academy. Secretary Dent speaks.

SCIENCE & TECHNOLOGY REPORT

- **Attempt made to increase salmon production**
- **Man's pollution hasn't yet affected ocean atmosphere**
- **Fishery industry urged to ease pricing policy**
- **River floods surge into Gulf altering fish locations**
- **Patents of special interest**

New Technology Program To Aid Industry

Technology in the U.S. Patent Office's file of 11 million patent documents — growing at the rate of 250,000 new documents a year— will soon be made available to business and industry for use in technology assessment and forecast activities.

Dr. Betsy Ancker-Johnson, in her first speech since President Nixon nominated her as Assistant Secretary of Commerce for Science and Technology in March, said, "the Patent Office's file is surely one of the world's greatest treasures of technological information. As new technologies are developed, the entire file is scrutinized, and new categories are created to reflect the latest technology. There are now more than 85,000 categories. Monitoring the changing patterns of patent activity within their categories, we expect to yield an accurate indication of technological activity throughout the world."

Dr. Ancker-Johnson said Commerce's Office of Science and Technology has established a Technology Assessment and Forecast Program, and that an initial report describing it is soon to be published.

High proportion

One of the objectives of the program, she said, is to identify these areas of technology in which a high proportion of U.S. patents is issued to foreign inventors. The number of U.S. patents granted to inventors who live in foreign countries has been rising steadily—from 17 percent in 1961 to 29 percent in 1971. Government policy officials are expected to use this type of information in planning domestic programs and in appraising the comparative strengths and weaknesses of the United States and competitive trading nations.

Business and industry are expected to find useful the data generated by the program which spotlights areas of technology exhibiting unusually rapid growth.

"One might assume that there must be 'acres of diamonds' out there in this Government-owned technology," said Dr. Ancker-Johnson. "The truth is that very few products or processes have reached civilian markets from Government-owned and patented technology. Among the many reasons is the fact that a company generally could secure only a non-exclusive license to a Government-owned patent. Companies are just not willing to put their money into enterprises which offer no protection against others licensing the same products and invading the same markets. Also, it is probably fair to say that a Federally-employed inventor

rarely discloses with commercial gains in mind," the Commerce official pointed out.

"Until this year, there was no uniform, Government-wide policy," she added. "In February, by direction of the President, the General Services Administration issued new regulations permitting the exclusive licensing of Government-owned patents. I should add that the regulations state that the granting of non-exclusive licenses is preferable. But they recognize that an incentive may be needed for the investment of risk capital, and an exclusive license may be the best available incentive."

The initial report on technology assessment and forecast is intended "to provide a sampling of the types of information and formats that could be employed in future reports. It contains analyses of 24 wide-ranging areas of technology, such as magnetohydrodynamic (MHD) generation of electricity, electronically actuated fuel injectors, inorganic fluorescent compositions, crimped fibers, and pipe and cable laying techniques," she said.

Comment will be invited from business and industry, said Dr. Ancker-Johnson, as well as from government users of technological information.

Former industry executive

Dr. Ancker-Johnson has, since 1970, been an executive of The Boeing Company at Seattle, Wash., most recently as manager of a task force studying a concept for an institute for world needs. She has also served that firm as Academic Science Advisor to the Research & Engineering Division; Manager, Advanced Energy Systems; and Supervisor, Boeing Scientific Research Laboratories. Prior to that time, she was a Research Specialist in Boeing's Scientific Research Laboratories. From 1964 to 1967, she was also Research Associate Professor of Electrical Engineering at University of Washington.

COMPUTER CONFERENCE—*Dr. Betsy Ancker-Johnson, newly-appointed Assistant Secretary of Commerce for Science & Technology, is briefed on the computer facilities of the National Bureau of Standards by its director, Dr. Richard W. Roberts.*

Adverse Weather Creates Problems For Nation's Businessmen, Farmers

Spring weather, coming on the heels of unusual winter weather conditions, is creating serious problems for farmers, businessmen, livestock breeders and city dwellers, according to Commerce's National Oceanic and Amospheric Administration.

During March, precipitation was above normal in most areas of the nation. Rainfall in the Deep South was two to four times the March normal. Frequent, heavy rains set new monthly records or matched previous ones in several Corn Belt States. Dodge City, Kansas, had 8.80 inches of rain—more than seven times the normal March rainfall for that area. Most of the soils in areas receiving heavy rainfall already were saturated as a result of rains last fall.

Because of this soil saturation, Corn Belt farmers are weeks behind in their spring plowing. Until sufficient drying occurs, soil cannot be worked and corn and soybeans crops planted.

In addition, unusually late snowfalls from the Rockies through the Midwest are causing serious livestock losses at the peak of the calving season.

Below normal

Paradoxically, March precipitation was below normal in the Pacific Northwest, Montana, North Dakota, northern Minnesota, parts of New England and the southern tip of Texas. In the Pacific Northwest, there is a serious drought. Reservoirs are running out of water and some hydroelectric plants may be forced to shut down if rain does not come soon.

To assist food and power production interests, NOAA's Environ-

mental Data Service is disseminating its Palmer Index Maps—assessments of the severity of wetness and drought—on facsimile circuits to offices of NOAA's National Weather Service and the news media. Used in the past principally to evaluate drought, the Palmer Index provides an objective tool for determining the geographical extent and the degree of severity of drought and wet weather across the nation and for comparing these with normal conditions.

Computed weekly by the Environmental Data Service's Agricultural Climatology Service Office located in the Department of Agriculture, the index measures the cumulative moisture deficiency or excess over an extended period of time. When abnormal weather persists week after week with only minor interruptions as in the present situation—the index values become increasingly negative for drought and positive for wet weather.

Industry, Consumers To Benefit From New Fish Quality Controls

Consumers and industry are expected to benefit substantially from more widespread quality control of processed fishery products announced by National Marine Fisheries Service. It is a part of Commerce's National Oceanic and Atmospheric Administration.

The Fisheries Service has approved a quality control system for the Wilmington, Calif., plant of the Gorton Corp., Gloucester, Mass. The plan, developed and implemented by Gorton, meets criteria developed by the Fisheries Service and published in the May 9, 1972, issue of the *Federal Register*.

Under the approved plan, Gorton will control all phases of processing from the start of the operation to the final packaged product. This involves temperature controls, proper amount of fish, net weight controls, assuring that all other ingredients are clean, safe, and of high quality, and that all processing steps are done under proper hygienic conditions.

Gorton will also do the necessary testing and analysis to substantiate that all quality control measures are acceptable. The Government's role, on a continuing basis, will be that of monitoring the system, and limited product analysis.

Attempt Made To Increase Salmon Production By Planting Unused Lakes

In an effort to increase Pacific salmon abundance, fisheries scientists of Commerce's National Oceanic and Atmospheric Administration are planting young salmon in Alaskan lakes and streams currently unused.

Biologists with the Auke Bay Laboratory of NOAA's National Marine Fisheries Service did extensive studies last summer on Baranof Island in southeastern Alaska stocking 132,000 young coho salmon in two small lakes and a stream which do not have natural salmon populations because of barriers to migration.

Fate of the planted fish will be closely observed in all three areas to learn more about the rearing potential of such unused waters.

Coho normally require a minimum one-year freshwater rearing period for the young to grow into six-inch-long juveniles. Coho young are not adapted for salt water as are chum and pink salmon.

Baranof Island has thousands of acres of productive streams and lakes that salmon cannot now use because barrier falls obstruct the upstream migration of adult fish, according to Fisheries Service biologists. Although barrier falls prevent adults from returning upstream to spawn, falls generally do not hinder downstream migration of the juveniles.

Other parts of Alaska have an abundance of similar waters, much of which could be used for rearing newly hatched salmon to the mitgrant stage before release, thus increasing adult returns.

Harry L. Rietze, Alaska Regional Director of the Fisheries Service, says the plan as conceived by scientists working closely with the Alaska Department of Fish and Game is not to establish self-perpetuating runs but to utilize unused waters by annual plantings of young fish. With modern techniques, salmon young are relatively inexpensive to produce in established hatcheries, the major cost being rearing and feeding them to the juvenile stage.

The biologists believe that surplus young from hatcheries could be stocked in currently unused waters for natural rearing to supplement production from wild and hatchery stocks. Lakes and ponds, especially those lacking fish populations because of barriers, normally have an abundance of tiny plankton organisms, one of the best natural foods for young salmon.

Incubated eggs

Fishery scientists foresee that when the stocking levels for different types of lake, pond and stream habitats are established, the young could be stocked from centralized hatcheries using aircraft or helicopters to reach the larger lakes and ponds.

Currently the young come from brood stocks of coho salmon whose eggs are incubated and hatched in gravel "incubator" boxes. They are then carried by back-pack to the isolated areas where they grow to migrating size. When adult spawning salmon attempt to return to inaccessible stream or lake areas, the entire run would be available for sport and commercial fishermen.

—*NOAA*

Man's Pollution Hasn't Yet Affected Ocean Atmosphere, Researcher Finds

Man-generated particulate pollution has not yet affected the atmosphere over most of the oceans except for "downwind" areas extending over the oceans from industrial centers. So says William E. Cobb, a research meteorologist with the Atmospheric Physics and Chemistry Laboratory, one of the Boulder, Colorado-based Environmental Research Laboratories of Commerce's National Oceanic and Atmospheric Administration.

As regulations to reduce the output of solids and some gaseous precursors of aerosols are strictly enforced and begin to become succesful, the concentration of these pollutants in the "downwind" areas should begin to decline and the contribution to global climatic changes caused by particulate pollution in the lower atmosphere could become insignificant. The same statement, however, may not be true for the effect of gaseous pollutants emitted by the same pollution sources, says Cobb.

The NOAA scientist bases his conclusions on a comparison of concentrations of aerosols—suspended solids—determined from measurement of atmospheric electrical conductivity made more than half a century apart.

Only one aspect

Noting that the measurements refer to the atmosphere only near its boundary with the sea, Cobb stresses that his results show only one aspect of man's effect on the atmosphere and climate and that aerosols trapped elsewhere in the atmosphere, such as the stratosphere, possibly more important in forcing climatic changes, should be made the subject of a similar systematic investigation.

Cobb emphasizes that pollution caused by particulate matter in the atmosphere is only a small part of the oceanic regions polluted by the global air quality problem, in which such gaseous pollutants as carbon monoxide, carbon dioxide, ozone, nitrogen oxides, and sulphur oxide are quite important. A broader examination of air quality is the subject of the Global Monitoring for Climatic Change (GMCC) program, the United States' portion of which is conducted by the Air Resources Laboratories of NOAA's Environmental Research Laboratories.

In Cobb's investigation, aerosol levels in the atmosphere were determined indirectly, by measuring the electrical conductivity of air.

Air is a poor conductor of electricity, and such conductivity as it has is caused by the presence of mobile ions—atoms, molecules, and subatomic particles carrying a positive or negative electrical charge. They are able to move in the earth's electrical field with considerable speeds until they collide and attach to a larger aerosol particle. Although aerosol particles themselves are quite small—perhaps a ten thousandth of a centimeter in diameter—they are hundreds and thousands of times larger than ions, so that they tend to capture and immobilize the charged particles. Because a reduction in the mobile ion population reduces atmospheric electrical conductivity, conductivity measurements can be used to determine aerosol concentrations.

Cobb compared electrical conductivity measurements made by him at the Environmental Research Laboratories' Mauna Loa Observatory in Hawaii, at polar and island observatories, by the NOAA ship *Oceanographer* on her globe-circling expedition in 1967, and by the sailing ships *Galilee* in 1908 and *Carnegie* from 1911 to 1929. From this comparison, he was able to establish benchmarks of the atmosphere's electrical climate, and so of its cargo of suspended pollutants.

According to Cobb, conductivity measurements indicate that most—perhaps 90 percent—of the oceanic regions of the world are maintaining a natural aerosol level without any detectable influence from the activities of mankind. Significant exceptions are the paths of aerosol pollution extending eastward from the United States in the North Atlantic and from Japan and Asia in the North Pacific. A third path, probably caused more by nature than by heavy industry, extends southward from Asia over the northern Indian Ocean.

Precipitation processes

"The aerol pollutant content of the atmosphere is largely composed of particles known as Aitken and condensation nuclei," Cobb says. (Aitken particles are extremely tiny, and most of them are not effective as condensation nuclei.) "The concentration of condensation nuclei can be very important to the precipitation processes because nearly every cloud droplet requires a grain of dust or other particle to form. Of equal or greater importance is the influence of airborne particles on the delicate balance of incoming and outgoing solar radiation and the temperature on our planet."

Nuclei are produced from the oceans and continents, forest fires, volcanoes, dust storms, and industry's burning of coal and oil.

While previous studies have estimated that burning of fossil fuels amounted to between five and twelve percent of the atmospheric "aerosol burden," the ratio of natural sources to fossil-burning sources varies greatly.

As emission control technology improves, fossil fuel supplies are reduced, and new, "cleaner" energy sources are developed, Cobb predicts the major sources of man-made aerosols will be reduced and the oceanic regions polluted by them will also be reduced.

Fishery Industry Urged To Ease Pricing Policy

An augmented New England fishery program is to be established which will devote major efforts to the promotion of fish now little used or discarded, provide technological assistance in processing, and materially expand efforts in foreign and domestic marketing.

That is the plan outlined by Dr. Robert M. White, Administrator of Commerce's National Oceanic and Atmospheric Administration. In a recent address in Gloucester, Mass., Dr. White urged the nation's fishery industry to adopt a policy of moderation in pricing.

"We cannot allow fish to lose its attractiveness to the consumer," he said, ". . . it should be available, and marketed, for every taste and every purse. We must not price fish out of the reach of the people. It is a time for restraint and for pricing policies based on the conviction that a fair deal to the consumer today will mean a fair deal from the consumer tomorrow."

Although the demand for fish is high, he said, industry nevertheless is beset by such fundamental problems as foreign competition, high costs, erratic markets, contaminants, and depleted stocks.

Combined attack

Dr. White pledged a vigorous effort by the Federal Government to overcome these problems and declared that solutions can come only when Federal and State governments and industry, all with common objectives, combine to attack them.

The Government is determined to acquire control of coastal species in the high seas off the U.S. shore for American fishermen, through the forthcoming Law of the Sea Conference.

"The day is gone when we will accept just any arrangement. We shall insist upon what we need, and we shall stay with it," he pointed out.

Although enforcement and surveillance programs directed at foreign fishermen have tripled in the Atlantic over the past five years, Dr. White revealed that they will be expanded further in the coming year with the help of the U.S. Coast Guard.

He counseled rapid action to establish Federal-State cooperation for specific species of fish: at present no Federal authority exists to exercise management within the contiguous zone between three and 12 miles and no general authority beyond 12 miles.

"President Nixon," he said, "has highlighted the importance he attaches to this matter; as a result, the High Seas Conservation Act has been introduced and awaits Congressional hearing this month." He urged support for its passage.

River Floods Surge Into Gulf Altering Fishing Locations

Spring floods are pouring torrents of fresh river water into the salt water of the northern Gulf of Mexico causing a huge displacement of fish populations but apparently only limited damage to fish and shellfish. That is the prediction of Commerce scientists working at the scene.

Reactions of some fish species to the heaviest influx of fresh water ever recorded in the Gulf were observed recently by scientists of the National Marine Fisheries Service of Commerce's National Oceanic and Atmospheric Administration.

They found that large numbers of commercially-important croakers, along with quantities of other shallow-water species, had fled many miles offshore into water 35 to 50 fathoms deep particularly east of the Mississippi Delta where muddy water from shore estuaries extended about 50 miles outward. As massive amounts of fresh water poured into the Gulf and diluted the seawater, the salt content near the coastline lessened in ever-widening circles and the fish were driven outward into deeper, more saline regions. Presumably, as the rivers recede and normal chemical balances are restored, the fish will return to traditional habitats.

Investigative attention

Most of the storm-related investigative attention centered on croakers and other groundfish stocks taken in quantity by the Gulf fishing fleet, usually nearshore. Croakers and menhaden generally are caught in relatively shallow Gulf waters up to 10 miles off the coast, where salt content is not as great as that of offshore seawater. Both fish species can tolerate a considerable range of both temperature and salinity in their environment, however, and reportedly can adapt to changing circumstances.

But recently, fishermen have found croaker fishing better about 50 miles offshore. Menhaden fishing fleets, which ordinarily fish even closer to shore than the croaker fishermen, found immense schools of menhaden about 15 miles offshore instead of the customary five or less. Scientific investigators also noted the unexpected presence of inshore species such as shrimp, spot, seatrout, and one large freshwater eel in deep water, miles away from their usual grounds.

In effect, as scientists point out, the severe flooding has temporarily extended the Mississippi Sound estuarine area several miles beyond its ordinary boundaries. Emphasizing that their observations are only preliminary, they said the same situation might have a passing negative effect on brown shrimp catches this year because of displacement of stocks but that the effect on white shrimp conceivably could be positive inasmuch as the white shrimp fares better in low salinity water. —*NOAA*

Patents Of Special Interest

Recent patents issued by the U.S. Patent Office included:

Energy absorbing steering column assembly. An energy absorbing steering column having an outer tube secured to vehicle support structure. The tube rotably supports a steering shaft which has a steering wheel connected to its upper end and a steering gear connected to its lower end. Spaced apart support members connect the column to the support structure. One support member includes metal deforming projections which engage the outer tube. The projections are constructed to plastically deform the tube upon axial displacement and thereby absorb the energy of an impact upon the steering wheel. The other support member includes a bushing that permits axial displacement of the outer tube. Patent 3,724,286 issued to Ernest W. Kitzner, and others of Detroit, Mich., and assigned to Ford Motor Company, Dearborn.

Pastry-making machine. This machine forms edible folded Danish pastry to replace the manual preparation. The machine uses a continuous sheet of pastry and first molds a transverse row having a number of edible filling receiving pockets; next the pockets are cut into blanks; then edible filling is deposited onto the blanks; then the corners of the blanks are consecutively folded over one another according to predetermined configuration and lastly the folded pastry is lifted up for removal from the machine. The number of operating stations are each cam operated from a chain of precalculated gear diameters to effect a timed vertical up and down reciprocity for intermittent operation. The machine comprises a chain conveyor having a number of substantially identical transverse slats. Each slat is adapted to receive a removable multi-celled cage. Moreover, each slat is provided with a number of different diameter apertures. Some of the apertures are adapted to receive machine-operated push rods to effect reciprocal engagement with spring-loaded folder elements disposed above the slat. Other slat apertures are oriented to receive frictionally the prongs of the separately removable lifter units. Therefore, the pastry contacting units and cage are removable from the machine, so that they may be sterilized. Patent 3,724,361 issued to Leonard Schafer, 2770 Briggs Avenue, New York, N.Y.

Electronic shift control for a transmission. A transmission having a clutch-controlled multi-ratio gear train driven through a torque converter includes an electronic control regulating pressure applied to an oncoming clutch during ratio change. The control primarily regulates the clutch pressure according to a desired acceleration of a rotatable member of the transmission such as a sun gear which accelerates during a shift. However, due to a low responsive characteristic of the torque converter, the initial part of the shift is controlled according to a simulated transmission output torque electronically derived from sun gear acceleration. Patent 3,719,096 issued to Richard L. Sprague and Davis S. Dennis of Anderson, Ind., and assigned to General Motors Corp., Detroit.

Abstracts and drawings of patents are published as they are issued in the *Patent Official Gazette* each Tuesday. More than 1,600 patents are issued each week. Trademarks are published in the *Trademark Official Gazette*. Copies of the *Patent Official Gazette* and the *Trademark Official Gazette* may be obtained from the Superintendent of Documents, GPO, Washington, D.C., 20402.

Science Calendar

May 21-23 — Cleveland, Ohio — Sheraton-Cleveland Hotel. 28th annual Technical Conference. Sponsored by American Society for Quality Control.

May 22-23 — Gaithersburg, Md. — National Bureau of Standards. Forum on "Automation in Servicing of Consumer Electronics." Sponsored by National Bureau of Standards.

May 25-27—Washington, D. C.— Business and Trade Exposition, sponsored by Washington Economic Union and the Assoc. of Technical Assistance Agencies.

June 5-6-7—Montreal — Sheraton-Mt. Royal Hotel. "Pollution Control in the Marine Industries" conference. Sponsored by International Association for Pollution Control, Suite 303, 4733 Bethesda Ave., N.W., Washington, D.C., 20014.

June 8-10—Redwood Falls, Minn.— Minnesota Inventors Congress. Information: Minnesota Inventors Congress, P.O. Box 71, Redwood Falls, Minn., 56283.

June 11-15 — Milwaukee, Wis. — Marriott Motor Inn. Managing for Quality. Sponsored by the American Society for Quality Control.

June 19-20 — Gaithersburg, Md. — National Bureau of Standards. Symposium on the Simulation of Computer Systems. Sponsored by NBS and others.

July 17-19 — Seattle, Wash. — Conference on "The Oceans and National Economic Development." Sponsored by National Oceanic and Atmospheric Administration.

August 14-16—Gaithersburg, Md. —National Bureau of Standards. Defects & Defect Clusters in B.C.C. Metals and their Alloys. Sponsored by American Institute of Metallurgical Engineers and NBS.

INTERNATIONAL COMMERCE REPORT

- **Founding conference of U.S.-China trade council**
- **Steel mill equipment mission report from Mexico**
- **Report on annual IEA conference**
- **Economic trends in Germany, Australia, Pakistan, Belgium**
- **Calendar for traders: World Trade Week events**
- **Schedule of Commerce overseas trade promotions**

Trade Growth Factors Cited By 400 Firms

Improvement in business activity here and abroad is seen in a survey of U.S. firms as the major factor in projected 1973 expansion of the nation's foreign trade. The effects of the Smithsonian exchange rate realignment are viewed as less important.

These judgments were made by 224 U.S. exporters and 172 importers questioned earlier this year in the second of a new series of semiannual surveys undertaken jointly by Commerce's Bureau of International Commerce and Treasury's Office of the Assistant Secretary for International Affairs — Research. Respondents accounted for 47 percent of the nation's overall exports and for 32 percent of its imports last year.

Firms were asked to forecast their trade and to estimate the changes from 1972 levels attributable to various factors. The information was requested to help improve the government's trade projections and to develop a better understanding of the determinants of trade.

At the beginning of the year, firms surveyed expected exports to grow by 11 percent in 1973 compared with a rise of 8 percent for 1972 which they had projected last summer. Imports, on the other hand, were expected to rise at the same 11.5 percent rate estimated for 1972.

Information reported in this article was obtained just before the devaluation of the dollar in February. A third survey is now under way to obtain up-to-date judgments of traders on the outlook for 1973, particularly with respect to the impact of the latest round of exchange rate changes. The broad sampling of firms covers mining, manufacturing, and trading companies; for imports, department stores and other retailers are also included.

Business activity the key

The increase in the dollar value of 1973 exports and imports resulting from growth factors cited by respondents was estimated at over three times the impact from factors tending to contract trade. The rise in demand for U.S. goods flowing from increased business activity abroad is to provide the major part of the projected export expansion this year.

Also noted as important in boosting shipments are new U.S. products and production methods, primarily involving technologically advanced types of machinery and transport equipment, and inade-

Main Factors Behind '73 Trade Growth Projected By U.S. Firms

Factors	Share of Projected Trade Change			
	Exports		Imports	
	Gains	Losses	Gains	Losses
	Percent			
Changes in business activity level:				
In the United States	....	....	40	30
In foreign countries	55	52	....	....
Inadequate production:				
In the United States	....	7	13	....
In foreign countries	8	....	....	4
Exchange rate changes from May 1971 to December 1972	5	1	2	10
Rise in production costs:				
In the United States	2	12	3	....
In foreign countries	2	....	4	5

quate production in foreign countries, mainly from crop shortfalls. Export gains related to changed arrangements between U.S. companies and their foreign affiliates, the new exchange rates, and the creation of Domestic International Sales Corporations (DISC) were likewise considered as significant in this year's trade outlook.

Leading the deterrents to export growth was a decline in demand for some U.S. products related to decreased business activity abroad. Respondents considered a rise in U.S. production costs and inadequate U.S. productive capacity in certain industries to be of lesser importance. Also mentioned among the negative influences were changed arrangements between U.S. companies and their foreign affiliates, and revisions in government regulations and laws abroad.

The expected rise in the value of U.S. imports in 1973 is to come largely from the strong expansion in this country's economy. Greater imports are also to result from inadequate U.S. productive capacity, new foreign products and methods, and, to a lesser extent, higher import prices reflecting changed exchange rates. On the other hand, reduced U.S. business activity in various lines and cutbacks in the volume of sales of foreign goods due to currency changes are singled out among the factors restricting import growth in 1973.

A comparison of the results of the first two surveys indicates that exporters expected the Smithsonian realignment to boost their sales in both 1972 and 1973. In contrast, importers anticipated that the restrictive effects of the new exchange rates would be felt primarily in 1972.

Europe more important

Western Europe's role as the leading U.S. trading partner is expected to strengthen in 1973, according to the firms surveyed. This region is to account for about two-fifths of the projected expansion in exports and imports. Trade with the developing nations of East Asia and with Latin America is also to increase substantially faster than the average, particularly for imports into this country. The exchange of goods with Canada is to expand further, but not as rapidly as with most other areas. Similarly, the increase in U.S.-Japanese trade is expected to be relatively small. In contrast, exports to Communist areas in Europe and Asia are projected at more than double their modest 1972 level; imports from these areas are also to grow but not as dramatically.

The fastest export growth is anticipated in transport equipment as a consequence of higher shipments of automotive products to Canada. Strong gains are also foreseen in agricultural products, largely grains, and in machinery. On the other hand, crude materials and fuels, reflecting heightened industrial activity and the energy shortage in this country, are to have the most rapid expansion among U.S. imports. Chemicals from abroad are likewise to record a strong rate of increase, followed closely by transport equipment, predominantly automotive products.

Seek Consortium Firms For Major Latin Hydro Project

The Department of Commerce is calling a meeting May 18 of U.S. firms financially and technically capable of accepting a role as a prime contractor or major participant in a consortium to build a major hydroelectric project on the Brazil-Paraguay border.

The hydroelectric installation, called Itaipu (Sete Quedas) will be designed to produce 10-12,000 megawatts and will cost in the neighborhood of $2 to $3 billion.

Major U.S. design constructors, contractors, and large generator and turbine manufacturers are invited. For further information contact David H. Baker, Director, Office of Export Development, BIC-260, U.S. Department of Commerce, Washington, D.C. 20230.

FCIA Opens Atlanta Office

The Foreign Credit Insurance Association recently opened a Southeast Regional Office in Atlanta—at Suite 1001, 32 Peachtree Street, NW.

The new office, FCIA's eighth full-service regional facility, will provide underwriting and marketing services for FCIA export credit insurance to exporters and bankers in Alabama, Florida, Georgia, Mississippi, North Carolina, South Carolina, and Tennessee.

FCIA also has regional offices in Chicago, Cleveland, Houston, Los Angeles, Milwaukee, New York, San Francisco, and a liaison and service office in Washington, D.C.

United States-China Trade Council To Hold First Conference May 31

The first conference sponsored by the recently organized National Council for United States-China Trade, in cooperation with the National Committee on United States-China Relations, will be held May 31 in Washington in the U.S. Department of Commerce auditorium.

D. C. Burnham, chairman of the Westinghouse Electric Corp. and chairman of the Initial Board of Directors of the Council, said the Council "will provide a focal point for the initiation of trade contacts, including trade fairs and trade missions, between American firms and the China Council for the Promotion of International Trade as well as other appropriate officials of the People's Republic of China."

Welcome by Dent

Secretary of Commerce Frederick B. Dent will welcome the conferees and speak at the afternoon session on "U.S. Government Role in the East-West Commercial Relationships." Other speakers include Burnham; George P. Shultz, Assistant to the President; Henry A. Kissinger, Assistant to the President for National Security Affairs; William J. Casey, Under Secretary of State for Economic Affairs; John H. Holdridge, Deputy Chief, U.S. Liaison Office, Peking; W. Michael Blumenthal, Chairman and President of the Bendix Corp. and Chairman of the National Committee on United States-China Relations; and Lucian W. Pye, Professor of Political Sciences at Massachusetts Institute of Technology.

Secretary Dent, who has been instrumental in providing governmental assistance to help the Council get started, said, "We view this conference, sponsored by the National Council for United States-China Trade, as extremely important. Normalization of relations with the People's Republic of China will serve the interests of world peace and stability as well as our own national interests. Formation of this Council was a logical outgrowth of President Nixon's historic discussions with Chinese leaders in Peking last year."

Formed as a private, non-profit corporation, the Council will be self-sustaining, self-controlled and independent in its efforts to promote trade and commercial relations between the United States and the People's Republic of China. Burnham said membership in the Council is open to corporations and other business entities already engaged in significant international business transactions and/or which are doing or have the capability of doing business with the People's Republic.

Membership fees will be $2,500 for firms with sales or gross income of $50 million or more and $1,000 for members with sales or gross income of less than $50 million.

Four working groups

In preparation for the conference, Burnham was scheduled to confer in early May with the chairmen of four working groups selected to plan the Council's activities: Membership, Andrew E. Gibson, president Interstate Oil Transport Co., Philadelphia; Finance, William A. Hewitt, chairman and chief executive officer, Deere & Co., Moline, Ill.; Legal, Walter S. Surrey, attorney at law, Surrey, Karasik & Morse, Washington, D. C., and Program and Liaison, Thornton A. Wilson, chairman of the board, Boeing Co., Seattle.

The working group chairmen will report to the conference on progress in their respective areas of responsibility. Deputy Assistant Secretary of Commerce for East-West Trade Steven Lazarus will report on industry-Government liaison. A question and answer period will be held after the addresses.

Inquiries regarding the conference and/or the activities of the Council may be addresed to the National Council for United States-China Trade, P.O. Box 2804, Washington, D.C. 20013. Phone, 202-659-9490.

Northeastern REECs Meeting In Pittsburgh

"The Reality of the U.S. Trade Deficit—How to Correct It" will be the theme of the joint conference of Northeastern Regional Export Expansion Councils (REECs), convening May 18 in the Pittsburgh Hilton Hotel.

Regional Expansion Council members from Baltimore, Boston, Buffalo, Charleston, W.Va., Cincinnati, Cleveland, Detroit, Hartford, New York, Philadelphia, and Pittsburgh will attend.

One of the conference highlights will be a discussion by Minoru Makihara, Washington representative of Mitsubishi International, on what Japan needs from the United States, what Japan has to offer, and how to do business with Japan. G. V. Rama Krishna, Minister of Economic Affairs, Embassy of India, and J. B. Machado, Attache, Brazilian Government Trade Bureau, will discuss trade with their countries.

Speakers from the Commerce Department will be Steven Lazarus, Deputy Assistant Secretary and Director, Bureau of East-West Trade; H. Philip Hubbard, Acting Director, Office of Field Operations; Forest E. Abbuhl, Director, Office of International Trade Policy; Edward S. Simmons, Director Domestic Field Programs Division; and Richard Meier, Special Assistant to the Director, Office of International Finance and Investment.

IN GUADALAJARA—*U.S. trade mission members discuss foundry operations with officials of NIBCO de Mexico, largest producer of brass valves in the country.*

Equipment Sales Seen In Mexico As Metallurgy Gets High Priority

The Mexican Government, in offering industrial-development incentives, has given increased metallurgy industry output a high priority. Steel production alone is expected to more than double by 1980.

To evaluate more clearly the growing sales opportunities stemming from this priority, representatives of five U.S. firms supplying equipment for foundries and steel mills, and related materials and instrumentation, last month traveled to Mexico City, Guadalajara, and Monterrey. Comprising a Commerce Department trade mission, the businessmen reported afterward on specific projects and applications to such problems as pollution control.

Eiven K. Nilsen, Midland-Ross Corp., Cleveland, describing the mission as "a very effective method for evaluating the market for our products," commented: "The companies we interviewed openly discussed their future projects and capital expenditures. The information gathered will enable our divisions more effectively to meet the needs of Mexican industry. We expect to achieve an even larger share of this market."

Other members echoed his affirmative appraisal. The five participants estimate that resulting sales in the next 12 months will reach $1 million.

Several projects in the Mexican metallurgy industry are being implemented to increase production. The Government's decision to proceed with the long-discussed steel complex at Las Truchas on the western coast is the most significant development in the expansion program, according to Mission Director Vincent A. Doran of the Commerce Department. The mission members discussed the project with Las Truchas officials while in Mexico City. In announcing the $500 million complex, the Government said that the additional output may enable Las Truchas to export 25 percent of its finished steel production.

A two-day visit to Guadalajara, Mexico's second largest city, uncovered a growing market which will warrant the increased attention of mission members, Doran pointed out. "Notable here," he added, "was the industry's concern about compliance with the Mexican laws to control pollution. This came to the surface during a plant tour, in discussions with officials of NIBCO de Mexico, the largest producer of brass valves in the country. Operating under a license agreement with Northern Indiana Brass Co. of Elkhart, Ind., the firm's officials revealed their interest in the induction melting

IN MONTERREY—*Mission member Robert W. Sundeen (right), Inductotherm Corp., meets with Raul Montelongo Romero, chief engineer of Altos Hornes, S.A.*

furnaces manufactured by Inductotherm Corp. of Rancocas, N.J., and represented on the mission by Robert W. Sundeen.

Monterrey—the home of Fundidora Monterrey, Latin America's first integrated steel mill, the Hysla Steel Group, a major steel producer in Mexico, and nearby Altos Homos S.A., the second largest steel mill in Latin America—was the highlight of the mission tour. Top officials of these companies and of other plants in the area met with the U.S. businessmen to discuss requirements and problems. Sundeen reported:

"Through the efforts of the trade mission, I had the opportunity to meet with Raul Montelongo Romero, chief engineer of Altos Homos, Mexico's largest steel producer. He requested quotations on equipment for an application we never knew existed but which is a natural for our induction melting furnaces. This one interview alone made the trip worthwhile."

Luis R. Alvarez, Dorr-Oliver, Inc., Stamford, Conn., expressed satisfaction in the presentation he made of his CableTorq thickener to the metallurgy industry in Monterrey.

Frank J. Gonzales, Leeds & Northrup, Philadelphia, remarked: "I was highly impressed by the quality of the contacts made in both Guadalajara and Monterrey. We would certainly join trade missions in the future."

One of the members, Russel E. Manley of Manley Brothers, Chesterton, Ind., was new to the Mexican market. His purpose in joining the group was to introduce the use of some of his company's products. "We think this will occur and will give us a continuing market," he reported. "The technology and practical know-how we have in the use and production of shell, molding and core sands, together with the use of our Fractionater Sizer to produce consistent, desirable grades of sand, can be tremendously useful to foundries in Mexico."

U.S. Firms Urged To Build Policy Role In Trade Field

American businessmen must recognize that world trade is now truly a cooperative undertaking in which no single country is predominant and thus can act primarily in its own interests.

And in such a new era of trade, U.S. firms must take a greater initiative in shaping national trade policy, the recent 55th annual conference of the International Executives Association was told by its major speakers.

One of them, Merle R. Yontz, Vice President of Caterpillar Tractor Co., supported this thesis by distributing brochures entitled "Your Global Paycheck" that his company has prepared for its employees and the communities in which it is located. He also showed a documentary motion picture, "Free World Trade," produced by the company for its employees to prove that Caterpillar's overseas operations benefit its U.S. workers.

Review of trade bill

Robert L. McNeill, Executive Vice President of the Emergency Committee for American Trade, presented a point-by-point review of the Administration's Trade Reform Act of 1973. He concluded that the measure could lead to trading conditions more restrictive than those now in force, but that overall it could establish a framework in which U.S. companies "will be able to operate."

Nicholas L. Deak, who heads Deak & Co. and Perera Co., Inc., two major foreign exchange firms, expressed his belief that gold will not be demonetized, but will continue to retain value even if various national currencies lose theirs in the world marketplaces. He advocated a policy of partial convertibility to gold by the U.S.

Deak emphasized the traumatic effect of inflation on international commercial activity. He contended that it is impossible to have a "controlled" inflation, that historically all inflationary policies have led to the runaway variety. He pointed out that the U.S. can expect cooperation at this time from the other Western industrialized nations because they know well that American events have an intimate effect on their own economic well-being.

The Caterpiller experience was described by Yontz in terms of its effect on the U.S. payroll, as nine factories were being established overseas in the past two decades. Rather than causing a drop in U.S. employment, Yontz said, the worldwide expansion has added 12,400 new jobs in making components for overseas production or in producing export models of the Caterpillar line that are not made outside the U.S.

Yontz urged a varied effort by U.S. businessmen in support of the U.S. world trade stance:

► Tell employees, local communities and the public at large what their companies' international operations mean for them;

► Give Government negotiators and other officials the facts on conditions encountered in world conditions;

► Support the General Agreement on Tariffs and Trade (GATT) and tell buisenssmen in other nations that we do;

► On environmental cleanup issues, insist that companies in all nations share in costs;

► Replace obsolete U.S. production facilities with modern high-productivity equipment, and

► Be aggressive in competing worldwide, through increased research and innovation, better distribution methods, vigorous salesmanship, and a positive attitude toward change.

Trade Fairs, Centers

U.S. Exhibitors Needed In Four Foreign Events

Commerce Department specialists are recruiting U.S. firms to display their goods at four exhibits around the world.

Security and safety equipment: Australia: Sales opportunities for industrial and commercial security and safety equipment are in a strong upswing in Australia, and the U.S. Trade Center in Sydney has scheduled an August 27-31 exhibit to help U.S. suppliers get their maximum share of the market. American products, which already enjoy a fine reputation for quality, have become more price-competitive due to the recent readjustments of both the U.S. and Australian currencies. Consumption of security and safety systems in Australia is currently estimated at more than $50 million per year. Contact John Klingelhut at 202-967-3876, or write him at BIC-238, U.S. Department of Commerce, Washington, D.C. 20230.

Metallurgy equipment and instrumentation: Mexico. The U.S. Trade Center in Mexico City will sponsor an Oct. 22-26 exhibition of U.S. equipment for the metallurgy industry.

Mexico's consumption of machinery, equipment and instrumentation for metallurgy is expected to increase at an average annual rate of about 7.5 percent, from $57.6 million in 1971 to $70.5 million in 1974.

Growth in Mexican steel production will be at approximately the 9 percent level annually for the next few years. The largest project in this field is the majority Government-owned integrated 1.5 million ton per year steel complex at Las Truchas, on Mexico's Pacific coast. This $500 million project will be under construction in stages until 1980. In addition, the major private basic steel firms have all announced expansion plans.

Local production in the field of metallurgy equipment reached an estimated $29 million in 1971. Production of instrumentation used in metallurgy is thought to have reached the $3 million level in the same year. This local manufacturing is in many cases the production of affiliates or licensees of U.S. companies, many of whom import components from their parent firms which are incorporated in the Mexican product.

For details, call Carolee Heileman at 202-967-5020, or write her at BIC-242, U.S. Department of Commerce, Washington, D.C. 20230.

Instruments, materials handling, electric power generating equipment: Israel. "Technology '73," an international show-case for instruments, materials handling, and electric power generating equipment scheduled for Oct. 23-31 in Tel Aviv, is expected to be the largest exhibit of its kind ever held in the Middle East.

Sponsored by the Commerce Department, the show is to be housed in the U.S. Pavilion of the Tel Aviv International Fair on the Tel Aviv Fairgrounds. The fair is a "business only" event, designed to attract the largest possible number of people with the authority to make buying decisions.

Israel's continuing economic boom shows no sign of faltering. The modernization and expansion of Israeli industry opens export sales prospects for a full range of U.S. process controls and analytical instrumentation. These promise to be two of the brightest fields for American manufacturers, along with materials handling, an area which lags far behind other industries.

Israel's continuing industrial expansion has created an increasing need for electricity. Frequent power shortages have made the Israeli public more aware of the need for standby, packaged power units, as well as mobile units and power generating units during peak periods. U.S. market opportunities for total energy applications are unlimited.

Contact Franc D. Manzolillo at BIC-246, U.S. Department of Commerce, Washington, D.C. 20230; or call him at 202-967-3752.

SIMO-International Office Equipment Fair, Madrid, Nov. 9-18. SIMO is the leading Spanish fair for business and data processing equipment. The 1973 event will be the 13th in the series, and should afford U.S. firms an excellent opportunity for market exposure to end users as well as prospective agent/distributors in the flourishing Spanish market. The U.S. Department of Commerce will sponsor an exhibit to help American suppliers take advantage of this opportunity. For details call Ann Corro at 202-967-3958, or write her at BIC-288, U.S. Department of Commerce, Washington, D.C. 20230.

U.S. Firms Can Exhibit At Korea Electronic Event

Although designed principally to promote Korean products to foreign buyers and investors, foreign participation is welcomed in the four categories of the Fourth Korea Electronics Show, Oct. 10-17—newly developed electronic products, components, materials, and other related products. **Write:** Korea Electronics Industry Information Office, 1212 Ave. of the Americas, Room 2305, New York, N.Y., 10036, (212-765-7310); or Mr. Ki Yong Kim, manager, Electronics Industry Promotion Division, Korea Fine Instruments Center, IPO Box 2489, Seoul 100, Korea (69-7916-9).

Six Trade Events Invite U.S. Firms

American exhibitors are encouraged to display their wares at six international trade shows scheduled this year in Europe and Japan.

CONECO '73—Fourth International Exhibition of New Products for the Building Industry, Bratislava, Sept. 26-Oct. 6. The high priority given to the completion of unfinished housing in Czechoslovakia opens excellent opportunities to American producers of building materials and construction systems. Of particular interest are plastics for schools, department stores, hospitals, and residential building, and ceiling materials of every kind. **Write:** M. Derer, Secretariat of the Exhibition, CONECO '73, Drienove 24, Bratislava, Czechoslovakia (Telex 092347).

World Railways Engineering Exhibition, Basel, Oct. 1-5. Write: Schweizer Mustermesse, Postfach CH-4021, Basel (Telex 62685).

International Garden Trade Fair, Cologne, Oct. 7-9. This even will cover the entire spectrum of products for lawn, garden and outdoor living. **Write:** Messe- und Aussteelungs-Ges.m.b.H. Koln, D5 Koln 21, Postfach 21 07 60 (Telex 8873426).

7th Audio-Visual Industrial Training Equipment Show, Tokyo, Nov. 8-13. Details may be obtained from the Industrial Daily News, 1-8-10 Kudan Kita, Chiyoda-ku, Tokyo.

IGEHO—Fifth International Exhibition for Industrial and Institutional Catering, Hotels, and Restaurants, Basel, Nov. 16-22. Write: Schweizer Mustermesse, Postfach CH-4021, Basel (Telex 62685).

International Exhibition of Inventions, Geneva, Nov. 23-Dec. 2. This annual event previously was held in Brussels. Write: Palais des Expositions, Geneva.

STRAIGHT TALK—*Data Automation's man in Frankfurt, P. Funk (center), discusses the SPC-16 minicomputer with visitors to the minicomputer and peripherals show at the Frankfurt U.S. Trade Center.*

Frankfurt Computer Show Brings Top West Europe Trade Center Sales

"To merely say that the exhibitors were pleased with the results would be an understatement; wildly enthusiastic would be more appropriate." That is the staff of the U.S. Trade Center in Frankfurt reporting on exhibitor reaction at a recent showing of U.S. minicomputers and peripheral equipment. More than $4.2 million in off-the-floor sales and projected sales by new-to-market firms of more than $52.5 million in the coming two years make it the best Western European show in the history of the U.S. Trade Center program.

Found representatives

Twenty-eight of the 67 firms whose products were shown were new to the German market. Fifteen of them were seeking some form of representation in Europe; ten agents and two licensees were appointed during the show, and negotiations were opened with 35 prospective agents, four licensees and one joint venture partner.

LET ME EXPLAIN — *H. Atanassow (right), of Data 100 Corp., explains the Model 78 Programmed Terminal with high-speed line printer and magnetic tape drive.*

UNUSUAL SETTING, UNUSUAL SHOW—*Alan G. Conner (right), of Christensen Diamond Products Co. of Salt Lake City, discusses his firm's self-propelled pavement cutting saw in the outside exhibit area at USAQUIP '73 in Singapore. Twenty-four U.S. firms displayed more than 700,000 pounds of equipment in the outside area at the largest U.S.-sponsored Far East trade event to date.*

Singapore Show Tops Earlier U.S. Efforts In Far East

USAQUIP '73, held in Singapore during April, was the largest U.S.-sponsored trade fair in the Far East to date: 74 exhibitors representing 97 U.S. firms made $3.1 million in off-the-floor sales and expect another $53.6 million in show-related sales during the coming year. Thirty exhibitors were seeking representation in 7 countries; 15 agreements were signed during the show and an additional 55 were in various stages of negotiation by the time the show was over.

Thirty-two firms were new to the Southeast Asian market, and three others had never exported before.

A total of 7,419 visitors came to USAQUIP '73, each being specially invited and each being specifically interested in some item of instrumentation, office equipment, construction equipment, building products, forestry, logging, sawmill and wood processing equipment.

Market research brought the right exhibitors; advance promotion brought the right visitors; an outstanding show management put it all together with an exhibition which drew high praise from the exhibitors as well as the visitors.

Typical quotes included: "For the number of people, there were a surprising number of customers." . . . "We are very impressed with the market and the staff help." . . . "Responses received were outstanding. Our sincere thanks to entire organizing staff of this successful trade show." . . . "Show was effective; customers were well qualified; results were above expectations."

Between-Show Events Score At Tokyo Center

Thirteen more U.S. electronics firms have learned still another way to employ the full resources of U.S. Trade Centers overseas: Between-Show Promotions. The companies took part in a pair of such promotions at the Tokyo Trade Center in March.

The Between-Show Promotion, or BSP, is a special program administered by the Trade Center staff to help U.S. firms already established in a nation increase their market penetration by providing available space at the U.S. Trade Center on a cost-free basis between regularly scheduled government-sponsored U.S. industry exhibitions.

By invitation only

The first of the Tokyo shows was held March 22 and 23. Twelve U.S. firms were represented by their mutual agent in Japan, Pan Electron, Inc. Attendance was by invitation only, and was limited to those executives previously identified by the Trade Center staff as key buying influences in the Japanese electronics industry. In just two days these firms received 600 registered visitors. The exhibition resulted in immediate sales in excess of $200,000 and projected sales for the subsequent 12-month period of $4.2 million.

During two days of the following week, the Datatype Corp. of Miami, represented by Mitsui and Co., demonstrated their equipment in the Trade Center. Because of the highly sophisticated optical character readers they displayed, only 200 executives were invited, and 120 responded. On-the-spot sales were $20,000 and projected sales for the following year totaled $200,000.

Cologne Food Exhibition Welcomes U.S. Participants

U.S. firms are welcome to exhibit at ANUGA '73, the International Exhibition of Fine Foods and Provisions in Cologne, Sept. 22-27. More than 170,000 visitors are expected at this event, which bills itself as the biggest and most influential international exhibition of the foodstuffs industry. **Write:** Messe- und Ausstellungs-Ges.m.b.H. Koln, D5 Koln 21, Postfach 21 07 60 (Telex 8873426).

Worldwide Business Outlook

German Imports To Rise As Economy Accelerates

German imports are expected to rise by as much as 15 percent this year, as economic growth advances on all fronts, reports the U.S. Embassy in Bonn.

Based on current forecasts for real GNP growth and steadily increasing total demand, most forecasters are now predicting that German imports of goods and services will rise by 13 to 15 percent in 1973. Imports of investment-type goods and of industrial commodities in particular should rise at rates well above those of last year, when imports were dominated by consumer goods.

If the opinion of some experts is correct and the German economy has become relatively more dependent on imports in the last decade, then import growth in 1973 could even exceed predictions. In any event, Germany should continue to offer a major, rapidly growing market for exports in the medium-term.

It is not possible to project a reasonable prognosis of the effect of the recent dollar devaluation on American exports to Germany. A survey conducted after the 1971 devaluation revealed that American exporters believe less than 25 percent of their sales in Germany are sufficiently price sensitive to benefit from changes of the magnitude that devaluation afforded. Moreover, for a variety of business reasons (increased profit margins, larger distributor allowances, stepped-up marketing and advertising expenses), the "reduced" export price may have largely vanished by the time the product reaches the last link in the distribution chain.

Exporters should also avoid the pat assumption that the high rate of inflation in Germany will necessarily mean a distinct price advantage. Industrial prices—the bulk of non-agricultural U.S. exports fall in this category—are indeed accelerating in Germany, but not at a rate which is dramatically higher than the U.S. rate. The year-on-year rate of increase in Germany was 4.3 percent in December, versus 3.6 percent in November in the United States. Wholesale prices rose at year-on-year rates of 6.1 percent in Germany (December) and 5.4 percent in the United States (November).

Thus, at this time, the slight differences in the respective rates of inflation add little to the positive benefits which dollar devaluation should bring.

Period of recovery

Last year marked a period of recovery from the slowdown in growth which affected the German economy in late 1971. From a period of negative real growth in the last quarter of 1971, the economy improved to the extent that real GNP for 1972 was 2.8 percent above the 1971 level. Consumption by the private and public sectors provided strong stimulus to the economy throughout 1972.

Despite the revaluation of the German Mark in December 1971, exports of goods and services were almost as strong in 1972 as in the preceding year.

Because recovery was well under way during the first half of 1972, price pressures did not ease significantly. In fact, the upward pace of prices reaccelerated as the year progressed. By December the cost-of-living index was 6.5 percent above the level of December 1971.

Prospects are good

Growth prospects for 1973 are good. Real GNP will probably increase by 4.5 to 5 percent over 1972, while the nominal sum goes up by around 11 percent. All elements of GNP should share in the rise:

► Private consumption should go up at about the same rate as 1972. Personal income may rise a little more slowly than in 1972, but the rate of savings then was ab-

SHOWING SINGER EQUIPMENT AT FRANKFURT—*H. Stohr, left, demonstrates Singer's Re-Na Printer at a Minicomputers and Peripherals Show in February.*

normally high and is not likely to be repeated.

► Public consumption is forecast by most observers to rise by 13-14 percent in 1973 and the leeway for cutting expenditures is limited.

► Fixed investment, including residential housing, was higher than expected in 1972 and should rise by about 10 percent this year.

► Accelerating economic growth among Germany's trading partners should offset any effects of the recent dollar devaluation, leaving export prospects very bright.

Price inflation is unlikely to lessen in 1973 and could even worsen:

- As the economy continues its upward path, demand pressures will increase.
- Cost pressures, after subsiding slightly in early 1972, are on the rise again. Recent collective bargaining settlements (in the metal and public worker sectors) resulted in increases in wages of 8.5 percent—well above the 6.5 percent settlement at this time last year.
- Falling unemployment (the rate is expected to be 1 percent in 1973) and increasing vacancies indicate rising pressures in the labor market.
- Capacity utilization in industry had already reached 87 percent in late 1972, leaving little room for inflation-free expansion.

This combination of demand-pull and cost-push could well result in a GNP price deflator of 6.5 percent in 1973 (versus 6.2 percent in 1972 and 7.6 percent in 1971), and prices paid for private consumption may also increase at the 6.5 percent rate. Prices for industrial goods will also go up more rapidly and were, in fact, rising at an accelerated seasonally adjusted rate of 4.5 percent in the fourth quarter of last year.

The German Government has introduced measures to take a total of DM 6.4 billion in purchasing power out of the economy over the 16-month period beginning March 1973. The chief features are: floating of a DM 4 billion "stability loan," a special surcharge on corporate and high individual income, and a 5 pfennig per liter increase in the gasoline and diesel tax.

The Government hopes these measures—combined with tight monetary policy and restraint on the part of labor and management—will hold the real growth rate of GNP within 4 to 5 percent in 1973 (the estimated increase in output capacity). Officials believe the result of growth at this rate would be a rise in the price level of GNP of 5.5 percent and a rise in consumer prices of 5.5 to 6 percent.

Monetary policy could not yet be characterized as tight—currency in circulation and checking account deposits rose at a year-on-year rate of 15 percent in the last month of 1972. Credit being extended in the economy is also expanding rapidly, thus adding to the expansionary effect of increases in the volume of money in circulation.

Competitive but rewarding

Germany, highly industrialized and a developed country in every sense of the word, has needs for investment and consumer goods which are very similar to those in the United States. Just as at home, businessmen seeking new sales opportunities will find a competitive, yet rewarding market.

Non-price factors are equally as important as price in the competitive battleground, according to German importers and industrial buyers. Such considerations as technological innovation, delivery dates, availability of technical literature in German, product design, market adaptability and after-sales service and maintenance are crucial.

Exporters prepared to recognize these realities will find promising outlets for their equipment and products in the following manufacturing sectors; chemicals and electrical, communications, steel and construction equipment. Demand for goods from all of these sectors is expected to show substantial growth (i.e., in excess of 10 per cent annual rates) during coming months.

Consumer goods sales, up more than 12 percent annually the past two years, probably will slack off only somewhat in 1973 to a 10-11 percent growth rate over 1972. More importantly, the recovery of fixed investment expenditures during the year should improve de-

DELIVERY TO VOLKSWAGEN—*Officials of USI-Clearing and Volkswagen meet to inspect the last part of an $8 million shipment to Volkswagen's plant in Wolfsburg. From left, Clearing officials Colin M. Stroud, Ted Steadman, and president James D. Pearson, and Volkswagen representatives Ed Bach and Larry Brown.*

mand for a large segment of U.S. exports for which demand grew relatively slowly in 1972.

With exceptionally strong consumer demand pushing food prices upward and reduced beef, veal and pork production, agricultural imports by the Federal Republic expanded sharply in 1972. The U.S. percentage share of this expanding market declined from 11 percent in 1971 to 9.5 percent in 1972, as total imports from the United States remained at the 1971 level of $800 million. Oilseed products accounted for nearly half of this value and feed grains for another 13 percent. Imports from the United States should reach the 1971-72 level in 1973, but chances do not appear good that any sizable increase will be achieved.

For industrial product lines, studies now under way or recently completed indicate particularly good sales opportunities for welding and cutting equipment, hospital management systems, biomedical equipment, environmental control equipment, electronic industry production equipment, and electronic data processing equipment. In the last mentioned area, for example, exhibitors at the Frankfurt U.S. Trade Center recently booked orders for $4.2 million and project additional orders of $66 million within 12 months.

U.S. Government-sponsored shows at German trade fairs—ACHEMA (chemical industry) in June, LASER '73 in September, ENVITEC (environmental and pollution control) in October, and SYSTEMS '73 (computers) in November—all will offer the potential for multi-million dollar sales.

Companies ready to take the temperature of the water in Germany would be well advised to join the more than 100 new-to-market American exporters who in 1973 will use the tried and proven techniques of trade center and trade fair participations for a low-cost, low-risk test of this large and rapidly growing market.

MODERN MELBOURNE—*Australia offers U.S. exporters better sales opportunities this year than ever before, according to the U.S. Embassy in Canberra.*

Australia Presents U.S. Exporters With Improved Sales Possibilities

Australia's economy has been showing signs of recovery from last year's slowdown.

Unemployment has been reduced, but inflationary pressures remain strong. Consumer spending and private capital expenditure seem to be recovering gradually. Nevertheless, real growth has been subdued, notes the U.S. Embassy in Canberra.

The state of the economy was a major issue at last year's federal election, which brought a Labor Government to power for the first time in 23 years. The previous Government had introduced a strongly expansionary budget in August, but the new Government has boosted social welfare outlays much further still. Some groups fear that the heavy federal deficit will add to inflationary pressures. The new Government intends to establish a Prices Justification Tribunal to cope with this threat.

External payments and trade balances remain strong. Facing widespread belief that the Australian dollar was undervalued and a massive buildup in international reserves, the new Government revalued its currency by 7 percent in December. Restrictions on capital inflow were also imposed.

These measures, coupled with the subsequent 10 percent devaluation of the U.S. dollar in February, pose serious problems for mineral export industries, which require overseas development capital and have many long-term sales contracts denominated in U.S. dollars.

Resurgent economy

Australia in 1973 presents American exporters with better sales opportunities than ever before, thanks to a resurgent local economy and the newly advantageous exchange rate. U.S. products, which enjoy a fine reputation for quality, are now substantially more price competitive. Japanese and most major European currencies appreciated against or maintained their previous exchange rate with Australia's dollar after Feb. 12, whereas the U.S. dollar devalued 10 percent.

Some of the world's most impressive minerals and energy finds

CARGO HANDLING IN AUSTRALIA—*This roll on/roll off wharf near Hastings, Victoria, serves companies which ship the bulk of their production by sea.*

have lately been made in Australia, and massive uranium, nickel, bauxite, iron ore and natural gas developments will create expanded commercial opportunities in the near future. Environmental concerns and modern transport needs also offer chances for U.S. export sales, as does a planned continental gas pipeline grid.

America is already the number one source of Australia's imports, supplying over one-fifth. This share, however, has been slipping. Although high tariffs bar some products from entry, many other lines are increasingly imported as local prosperity and industrial requirements grow. Competition from other exporters remains intense.

Nevertheless, U.S. firms can compete especially favorably in high technology and capital goods. Most notable are computers and automated business machines, testing and control instruments, packaging and materials handling equipment and machinery for the mining industry.

Service to exporters

To compete successfully in this attractive market, American firms can count on various U.S. Government facilities for assistance.

The U.S. Trade Center for Australia, in Sydney, can supplement the regular sales promotion of American exporters. The Center regularly presents programmed exhibits featuring specific product lines. The facilities are also available to U.S. firms for individual promotional activities between regular exhibitions. The Center, which offers an excellent location and occasionally stages exhibits in other major cities, has helped many firms achieve impressive sales success since it opened in 1970.

The U.S. Consulates General in Sydney and Melbourne have excellent commercial library facilities and expert staffs to advise American exporters in Australia. More limited assistance is available at U.S. Consulates in Brisbane and Perth and the Embassy in Canberra.

Financing assistance

The U.S. Export-Import Bank provides a broad program of loans and guarantees for financing large purchases of U.S. goods and services on extended terms. American firms interested in sales to Australia or other overseas markets should inquire about the advantages of Ex-Im financing and services.

Since well before the 1972 election, the Australian Government has been studying the issue of foreign investment and overseas ownership and control of local resources. Traditionally, the Commonwealth (federal) and six State Governments have broadly welcomed foreign investment with very few limitations or restrictions. Australian officials and the general public have recognized the indispensable role of overseas capital, market access, technology and know-how to the development of this immense, mineral-rich land which has barely 13 million inhabitants.

While this awareness still exists, some have expressed concern that key sectors of the local economy might be dominated by foreign interests to Australia's detriment. The takeover of local firms by larger, wealthier overseas concerns has become a particularly sensitive issue. One reason the Government acted in December to reduce the massive influx of foreign capital was the fear that such monetary flows from abroad could conflict with its own fiscal and monetary measures.

A Senate Select Committee on Overseas Ownership and Control has been holding extensive public hearings on foreign investment. Its final report and recommendations are not expected until late this year.

Meanwhile, the new Commonwealth Government is studying various aspects of foreign investment prior to making a policy statement. The Prime Minister has also moved to continue and expand the screening process of takeover proposals which his predecessor inaugurated in October.

Banking and finance are other areas of concern. Greater Government control over the activities of non-bank financial institutions is likely.

Lastly, the Government is expected to take more active steps to increase local participation and equity in future business projects. However, Government leaders disavow any intent to impose requirements retroactively on overseas enterprises that were legally established in Australia prior to the last election.

Big Question Now In Pakistan: When Will Investment Resume?

Pakistan can expect only modest growth until there is a return to more normal relations between private industry and the government. Despite the temporary hiatus in private investment, however, T. Patrick Killough, Commercial Attache at the American Consulate General in Karachi, reports good market opportunities for a variety of U.S. products.

The uncertainty of the future role which the government contemplates for the private sector has brought new private investment almost to a halt and has held in abeyance hopes for a broadly based economic resurgence. Without the lift of new domestic investment, only modest improvements over 1972's good but unspectacular performance can be forecast for industry and agriculture.

There are attractive prospects for some categories of American exports—notably wide-bodied jet aircraft, railway equipment, buses and a variety of machinery for the vitally important cotton textile industry, cotton ginning, rice processing and sugar mills. Demand for these and other imported products such as industrial raw materials is unquestioned. Foreign exchange for such purchases has been tight but is becoming more available.

On the other hand, the climate for American and other foreign investment remains full of question marks.

The economy was severely strained in December 1971 when Pakistan lost a war to India and gave up more than half of its population to the new nation of Banglalesh. As the nation limped into 1972 the political unraveling and rapid economic decline of the four remaining provinces of West Pakistan were real possibilities. Yet in 1973 the ship of state was still afloat. Both industry and agriculture had performed with surprising resilience and toughness to buy time for Pakistan to pull itself together.

In late 1971 the government of President Bhutto succeeded the martial law administration of General Yahya Khan. The new government made major economic and social changes.

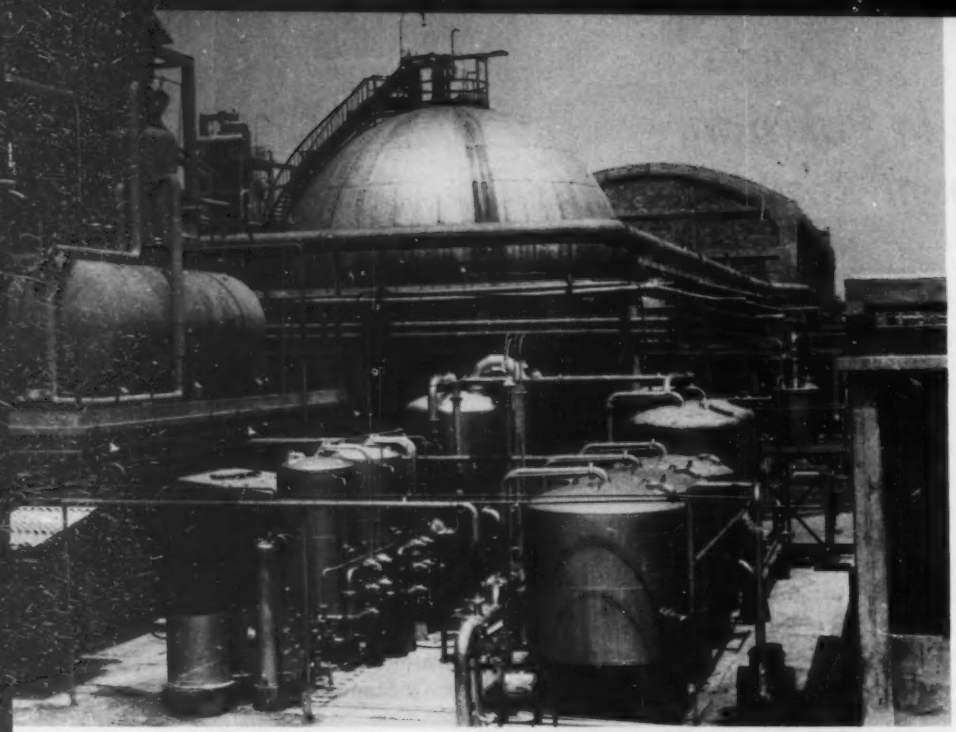
The 1972 reforms included nationalization of life insurance; transfer to government management of 10 sectors of industry (including a total of 32 corporations manufacturing chemicals, automobiles, tractors, cement, etc.); a new health policy greatly restricting the use of brand-name medicines; a major overhaul of the banking system; tough new tax laws; and abolition of the so-called "managing agency" system of corporate control.

In agriculture ceilings were imposed on land holdings; acreage above the ceilings was subject to expropriation without compensation. At the same time the Pakistani rupee was massively devalued. Labor reforms included raising minimum wages and introduction of mandatory profit sharing schemes.

The winter-spring economic reforms were followed not only by industrial stagnation, but also by labor and communal unrest during the summer of 1972. The crisis grew particularly acute in the industrial cities of Karachi and Hyderabad where militant workers shut down or occupied scores of factories. The port of Karachi suffered major disruptions and the pace of both imports and exports through Pakistan's only major port fell off dramatically.

The magnitude of the disorders and attendant loss of production appeared to have a sobering effect. By September the government stated that the period of massive economic reform was drawing to a close. Government and party spokesmen gave assurances that there would be no more nationalizations or expropriations of industrial property for at least five years. The government exhorted the still reluctant entrepreneurial

MACHINE TOOLS FACTORY AT TAXILA—*Pakistan's growth will pick up again when the private sector resumes its earlier commitment to investment.*



FERTILIZER FACTORY AT MULTAN—*Pakistan's Government intends to set up new enterprises in the public sector, particularly in fertilizers and steel.*

community both to increase production and to come forward with new investment proposals. Indeed, by January it appeared that the Government would welcome new domestic and foreign private investment in the 10 categories of industry ostensibly reserved for government management.

Steps to restore confidence

By February the first steps had been taken to restore a productive relationship between government and business. Many industrialists still maintained a "wait and see" attitude towards government assurances. Nonetheless, a gradually increasing number seemed willing to give at least some reforms a chance. Of particular significance were the appointments of business leaders to run PIA—the government-managed national airline—and the Ministry of Commerce's Export Promotion Bureau. Still another leading industrialist was given permission to arrange financing for construction of a chemical fertilizer factory.

The nationalized life insurance industry claims to have scored measurable successes under government management and at least some of the 32 private companies transferred from private to government management in 1972 have performed better than critics had anticipated. Government-managed enterprises may prove to be a good training ground for a body of corporate executives taken from outside the traditional industrial elite. At the same time responsibility for managing industrial assets and for accounting to private shareholders may have given government leaders new awareness of the risks and complexity of modern manufacturing and marketing.

Prospects for investment

The government intends to set up new enterprises in the public sector, most notably in chemical fertilizers and steel production. The government has also given assurances that government-run corporations will be efficiently and profitably managed. Competition from the private sector appears welcome.

Convincing evidence of restored domestic investor confidence will, however, have to precede any corresponding increase of foreign investment in Pakistan. American and German companies continue the search for petroleum, but other foreign groups appear to be awaiting the outcome of the claims for compensation by American Life Insurance Co. and other nationalized life insurance firms.

Upheavals in the pharmaceutical field due to the new "generic name" requirement for medicines have caused a number of investors to postpone indefinitely previously planned expansions.

The all-important question is: when will the Pakistani private sector decisively resume its earlier commitment to investment?

Throughout 1972 agriculture proved remarkably immune to the dislocations of war and the shocks which the economic reforms caused in the industrial sector. In the summer of 1972 the government introduced a new pricing policy which aimed to assure balanced production of needed crops—particularly cotton, wheat, sugar and rice. Led by cotton, agricultural production in 1973 promises to be at least as good as 1972's solid performance and probably better.

Last year Pakistan was reasonably successful in finding new external markets to replace the lost internal market of East Pakistan. Exports of raw cotton, textiles and tobacco gave promise for future expansions. Many textile manufacturers now find themselves with all the orders they can handle. Curiously enough, at a time when Pakistani manufacturers are clamoring for the United States to relax restrictions on textile imports, a foreign government buyer in January was unable to locate a single Pakistani firm willing to bid on an order to supply 20 million square meters of drill cloth.

An encouraging development in recent months has been the growing interest of large American department store chains in a range of carpets, handicrafts and consumer goods such as bicycles and baseball gloves.

Pakistan's economic potential has been compared with that of South Korea. Some experts believe

that the quickest path to overall economic expansion is for Pakistan to adopt a new export strategy modeled on Korea's. This would mean establishing new industries aimed directly at foreign markets. Such a strategy is only possible for Pakistan if private investor confidence is restored.

Debt moratorium ended

Pakistan has ended the unilateral moratorium imposed in 1971 on repayment of its bilateral debts. As a result new flows of concessional foreign exchange are again entering the economy. It is, therefore, possible that the pace of industrial and agricultural equipment imports will pick up dramatically in 1973.

There are excellent sales prospects for wide-bodied jet aircraft (PIA plans to buy at least three this year). The government has announced multi-million dollar programs to build up Pakistan Western Railways and to buy badly needed buses for use in Karachi and Lahore.

A catalog Exhibition of American pumps, valves and compressors held in Karachi in January confirms earlier estimates of demand for these items. Given the government's priority attention to agriculture, there could also be strong demand in 1973 and 1974 for cotton ginning equipment, rice processing machinery and equipment for sugar mills. Spindles and looms for the cotton textile industry are avidly sought by private industrialists. The market for clothing also remains steady.

For American firms, successful selling to the increasingly important government purchasing agencies and government-managed corporations probably boils down to selecting and strongly supporting a qualified, enterprising local representative. As Pakistan continues to meet necessary preconditions for economic expansion, American firms without good local representatives may miss a growing volume of export opportunities.

Rapid Dominican Economic Growth Enhances Market

After four years of economic growth more rapid than that of almost all other Latin American countries, the Dominican Republic is confident that 1973 will be its fifth straight year of fast growth.

Led by an almost 40 percent increase in exports, according to the U.S. Embassy in Santo Domingo, the Dominican economy in 1972 grew by over 9 percent in real terms. Although increased sugar earnings and the start-up of ferronickel exports accounted for the bulk of this extraordinary increase in exports, almost all exports rose.

While exports are unlikely to grow at the same rate in 1973, an increase of perhaps 20 percent is a distinct possibility. Higher sugar prices and an increased volume of ferronickel shipments will be important in the 1973 expansion, but prospects for other exports, such as beef and processed and fresh vegetables and fruits, are also good.

The continued energetic investment policies of the Dominican Government and rising private sector investment also played a big role in the good 1972 performance and are expected to continue.

The sharp increase in exports gave the Dominican Republic some relief in 1972 from its chronic balance of payments pressures and should do so again in 1973, resulting in the elimination of its sizable commercial arrears. However, the balance of payments remains the principal constraint on growth of the Dominican economy, and will make itself felt again when sugar prices return to long-term levels, unless additional major sources of exchange earnings, such as tourism, are developed quickly.

Despite the shocks that the Dominican agricultural sector suffered from the rapid enactment and initiation of fairly sweeping agrarian reform laws last year, non-sugar agricultural production in 1972 increased by about 9 percent, a better rate than the country has experienced for many years.

A question mark for 1973 is how Dominican production will maintain itself in the face of continued implementation of the agrarian reform laws. Whereas the disruption will cause some reduction in output of some agricultural products such as rice and slow the growth of others such as cattle, total production should, nevertheless, increase moderately, aided especially by the improved performance of government institutions dealing with agriculture.

The Dominican Republic's recent growth has made it the most active market for U.S. exports in the Caribbean/Central America region. The continued growth in construction, tourism, mining, and agro-industry in particular offers significant opportunities.

Direct sales potential is greatest for power generating equipment; food processing and packaging equipment; hotel/hospital/restaurant furnishings and equipment; agricultural machinery; irrigation, water supply and sewage equipment; and earthmoving and mining machinery.

Food processing and packaging in particular represents a good opportunity, as Dominican enterpreneurial interest is now increasing in the processing of food for import substitution and export. Specific items include machinery for drying and/or freezing foods, label-printing machinery, candy-making machinery, packaging materials, quality control equipment, and all items associated with a rapidly growing dairy, cattle feeding and meat export industry.

Investment opportunities appear to be most promising in tourism, principally through participation in the government's north and south coast projects, and agro-industry/export operations such as meat and dairy, and processed and unprocessed vegetables and fruits.

Belgian Pace Picks Up; Sales Outlook Is Good

Belgium is out of the economic doldrums in which it found itself during 1971 and part of 1972. The Belgian GNP is expected to grow between 4.5 and 5.0 percent in constant prices during 1973, up from 3.7 percent last year.

Trade prospects are also good, according to the U.S. Embassy in Brussels. Devaluation of the dollar, the gap between expected Belgian and American inflation rates, and solid Belgian economic growth all combine to make this a very attractive market for U.S. exporters —new and old, large and small.

Devaluation of the dollar is in Belgium an important consideration for American exporters in planning market expansion. One thing seems clear: devaluation will make many direct American exports more competitive in Belgium. American businessmen in 1973 should, therefore, review their plans for this market.

Inflationary pressures

The great economic problem during the remainder of 1973 is clearly going to be the control of growing inflationary pressures. A few Belgian bankers predict Belgium will have one of the lower inflation rates in the EEC, perhaps only 6 percent. Although 6 percent is higher than the rate that prevailed in 1972, when prices were inflated by the introduction of new taxes, many believe the rate will be higher still—perhaps 8 percent.

By the end of February, the retail price index in Belgium had risen an average of 6.9 percent over the previous 12 months, with foodstuffs primarily responsible for recent increases. The wholesale price index at the end of January was on the average 8.7 percent above what it had been at the end of January 1972.

All observers of the Belgian economy are concerned over inflation, at both the wholesale and retail levels and, in March, the government announced a 14-point program to deal with the problem. The plan, a mixture of monetary, fiscal, and direct price control measures, is generally considered to have only moderate chances of success, particularly in light of Belgium's virtual total integration into the wider European economy.

The Belgian national budget for 1973 presented by the last government during the fall of 1972 was intended to be a retreat from the deliberately expansionary budget of 1972. In fact, events since presentation of the original budget have increased expenditures beyond original expectations. The additional inflationary pressure has become a political issue raising the specter of new taxes.

Interest rates have risen in the first months of 1973 for both commercial and government loans as a result of deflationary policies being followed by the Banque Nationale. Domestic interest rates are expected to continue to edge upwards during the next few months. The money supply will undoubtedly expand, however, in response to inflationary trends.

For the second and third quarters of 1973, predictions are that sales will expand for all sectors of the economy except in certain textile industries and in the electrical equipment industry. For the entire year of 1973, it is predicted that industrial expansion will be considerably higher than the 5.7 percent growth which 1972 showed over 1971.

Activity in the construction industry remains steady but is rising much more slowly than most industrial sectors.

New investment throughout Belgium is low and probably reflects the existence of underutilized capacities in some industrial sectors and a general attitude of caution. Private sector investment is generally expected to pick up in the latter part of the year and will probably more than compensate for the slowdown expected in public sector investments.

Preliminary data for 1972 indicate that Belgium's exports were up 13.5 percent, and imports 8.5 percent over 1971.

Since Belgian exports to the United States represent only about 6 percent of total exports, Belgium does not expect its trade to be seriously affected by devaluation of the U.S. dollar. Certain industries which export a large part of their production to the United States, such as glass and some textiles, however, may be hurt by the devaluation.

Some unemployment

Although the average number of unemployed seeking full time work in 1972 remained at slightly under 100,000, the monthly average for 1972 was higher than the average for 1971. Unemployment seems to be growing in the construction, food, textile, and clothing industries. Unemployment among women is growing faster than among men.

Wage costs in 1972 again rose about 14 percent. Of this about 6 percent was due to automatic cost-of-living provisions and the remaining 8 percent was the result of collective bargaining agreements. Wage increases in 1973 are expected to equal those of 1972.

Preliminary data show that overall American exports to Belgium declined by about 2.4 percent between the end of 1971 and the end of 1972. (The previous year the overall decline in U.S. exports to Belgium had been about 8 percent.) The 1972 decline can be attributed almost entirely to falling sales in Belgium for American agricultural products; most American exporters of manufactured

goods continued to find Belgium an attractive market in 1972.

For example, American exporters of mineral products (such as sulphur and metallic ores) and transportation equipment (particularly aircraft) have continued to increase sales. American chemical sales to Belgium also did well in 1972. Among non-agricultural goods, only copper products did poorly in 1972.

Four top areas

Information available in Brussels suggests that among the many types of products that can be successfully marketed in Belgium, at least four have particularly good sales potential for 1973:

► Refrigeration and air conditioning equipment: American exporters of water chillers, large (over 100 CV) airconditioners, and hermetically-sealed compressors should continue to find an excellent market in Belgium. Air-conditioning units for large office buildings and medium-sized units for computer installations also offer attractive sales prospects to U.S. exporters.

► Health care equipment: With almost 75 Belgian hospitals under construction, expansion or reconstruction, there exist opportunities for small and large American manufacturers of health care equipment to expand sales.

► Testing equipment for the electronics industry: American exporters of such items as logic-integrated circuit testers, piezo electric meters, automatic wire verifiers, and vibration tables will find excellent market opportunities in Belgium during the remainder of this year.

► Pollution control equipment: The excellent response already engendered by a display of American export catalogs of products in the solid waste and water pollution fields gives proof that Belgian businessmen are eager to profit from America's technological lead in the field of pollution control.

Dynamic Development Phase Should Bring New Opportunities In Libya

Continued expansion of the Libyan economy presents excellent and, in many cases, untapped opportunities for the sale of U.S. goods and services.

The U.S. Embassy in Tripoli goes on to say that the Libyan economy remains heavily dependent upon the petroleum sector and, despite attempts to diversify the economy, this dependence will continue for a long time into the future. Petroleum revenues continue to be almost the sole source of foreign exchange earnings and provide over 85 percent of government revenues.

In a boom

The economy is in the midst of a boom. Major constraints on continued expansion are the lack of trained personnel at all levels to carry out development projects (Libya's total population is only 2 million); and the bottlenecks which result from the current lack of a modern national infrastructure. A notable example of this latter constraint was manifest during February when there were over 70 ocean vessels stacked up waiting unloading in the port of Tripoli.

Continued development spending and the costs of government operations have brought the accumulation of foreign exchange reserves to a halt. For the past few years reserves had been accumulating at the rate of approximately $600-$800 million a year until they had reached a high of $3.05 billion in May 1972. Since then they have declined slightly.

The next five years should be a dynamic phase of national development in Libya. Despite certain unknowns in the future relationship between the government and the oil companies and the pending merger with Egypt, oil revenue will probably remain close to its current level and the government's commitment to extensive development spending will remain firm.

Petroleum will remain the mainstay of the economy, despite vigorous attempts at diversification, particularly through expansion of the industrial and agricultural sectors. The heavy emphasis upon agriculture stems from a desire to make Libya self-sufficient in food. Expansion of agricultural exports is, therefore, a secondary and more long-range goal.

In any event, the increase in local agricultural production which is bound to result from current development spending will tend to reduce the need for agricultural imports which, during the first quarter of 1972, accounted for 14.3 percent of all imports into Libya.

After U.S. exports to Libya had fallen off by 27 percent in 1971, 1972 saw an upturn. U.S. exports amounted to $85.1 million vis-a-vis $77.7 million in the preceding year. To maintain and hopefully to accelerate this momentum, the United

LIBYAN OIL—*An Occidental tanker is loaded at the port of Zueitina with crude from the company's Libyan fields.*

States must continue to develop export sales outside the petroleum sector (in which U.S. exporters have been traditionally strong but which is becoming an increasingly smaller proportion of Libyan imports).

The United States should continue to do well in other areas of traditional export strength where technology can most easily offset price and freight rate disadvantages: airconditioning, heavy construction equipment, pumps, and electronic data processing equipment, for example.

The agricultural sector will offer a particularly attractive market for U.S. exports over the next three to five years. Libya will require consulting services, assistance in land reclamation, irrigation equipment and all types of farm machinery, plus increasingly sophisticated advice and equipment for harvesting, packaging and marketing. Even in areas where the United States has traditionally been less competitive in Libya than European suppliers — fertilizers, seeds and simple farm tools and machinery—future demands could be so large that U.S. suppliers could offset their price and freight disadvantages if delivery schedules can be accelerated and service and training facilities made attractive.

As the economy continues to pick up momentum the United States should be able to increase its sales of more sophisticated services and equipment, e.g. computers, medical and scientific equipment and packaging equipment.

Libya's reliance on a mixed economy offers American businessmen particular challenges and opportunities. In some instances ministries wish to deal directly with foreign suppliers, but in others a good private sector agent can be extremely useful. There are no fixed rules for choosing between the two and for this reason, among others, American firms are counseled to visit Libya so they can deal directly with the possible purchaser.

Calendar For World Traders

May 15—Aurora, Ill.—Export Possibilities Conf., Gaslight Manor.

May 15—Cedar Rapids, Iowa—Governor's Conference on Export Expansion.

May 15—Charleston, S.C.—National Maritime Day Dinner.

May 15—High Point, N.C.—Triad World Trade Club of Greensboro, High Point & Winston-Salem annual world trade observance.

May 15 — Washington — "White House-Business Dialogue on the President's Trade Bill," Sheraton-Park Hotel. Sponsor: Chamber of Commerce of the United States.

May 16 — Chicago — Chicago Midwest Credit Management Assn., Bismarck Hotel.

May 16 — New Orleans — World Trade Club luncheon meeting, Plimsoll Club.

May 16—New York—"Labor Presents its Views on the Multinationals," World Trade Institute. Contact: D. Moffit at 212-285-4452.

May 16—Toronto, Can. — International Snowmobile Assn. meeting. Speaker: Thomas E. Drumm, Commerce Department Ombudsman for Business.

May 16—Ogden, Utah—Early-bird breakfast meeting of Chamber of Commerce.

May 17—New York—FCIB Drug, Chemical & Food Export Club luncheon meeting, Advertising Club, 12:15.

May 17 — San Francisco — World Trade Club's Man-of-the-Year Award.

May 17 — Salt Lake City — Utah-Idaho World Trade Club day-long seminar.

May 18 — Pittsburgh — Northeastern REEC meeting, Hilton Hotel.

May 21—Boston — World Affairs Council Dinner.

May 21—Detroit—Economic Club's World Trade Week observance.

May 21—Herrin, Ill.—World Trade Dinner, Sandpiper Club.

May 21—Los Angeles—World Affairs Council meeting.

May 21 — Los Angeles — Joint luncheon meeting of Chamber of Commerce and Air Cargo Assn.

May 21—New Orleans—American Industrial Growth Council meeting on "Growth industries in the next decade."

May 21—New York—Joint World Trade Meeting of Chamber of Commerce & Industry, World Trade Club, Plaza Hotel.

May 21—Portland, Me.—Propeller Club Luncheon.

May 21—Portland, Ore.—Chamber of Commerce's World Trade Week Forum.

May 21—San Diego—Chamber of Commerce World Trade Week observance.

May 21 — Seattle — Propeller Club Luncheon.

May 21—Springfield, Ill. — Rotary Club's World Trade Week Dinner, St. Nicholas Hotel.

May 21—Washington, Pa.—Chamber of Commerce Luncheon.

May 22—Albuquerque—New Mexico REEC and Albuquerque Chamber of Commerce joint World Trade Week meeting.

May 22—Atlanta—Int'l Trade, and Investment Conference, Atlanta International Hotel. Sponsors: Pan-African Business Center, Chamber of Commerce, Commerce District Office.

May 22—Baltimore — Johns Hopkins University's School for Advanced International Studies World Trade Week observance.

May 22—Bay City, Mich.—Rotary Club World Trade Luncheon.

May 22—Carson City, Nev. — Rotary Club World Trade Week Luncheon.

May 22—Chattanooga—Downtown Kiwanis Club luncheon meeting, Read House, 12:05 p.m.

May 22—Boston—Propeller Club's Maritime Day Luncheon.

May 22—Cincinnati—Rotary Club World Trade Luncheon.

May 22 — Dallas — World Trade Week Dinner, Sheraton Hotel. Sponsors: International Trade Assn., Chamber of Comm., Coun. of World Affairs.

May 22—Detroit—Downtown Lions Club World Trade Week Luncheon.

May 22 — Hartford — Connecticut REEC's World Trade Week Dinner, Hilton Hotel.

May 22 — Jacksonville — World Trade Luncheon.

May 22 — Little Rock — Arkansas Exporters Roundtable.

May 22 — Los Angeles — International Marketing Assn. World Trade seminar and luncheon.

May 22—Meadville, Pa.—Chamber of Commerce's World Trade Week Luncheon.

May 22—New York—National Industrial Conference Board meeting on International Productivity, Cost and Price Comparisons. Hotel Commodore.

May 22 — Philadelphia — National Maritime Day Luncheon.

May 22-23 — Miami — Governor's Conference for International Trade.

May 22—Mobile—Alabama World Trade Assn. & Mobile Chamber of Commerce's World Trade Dinner.

May 22—Pittsburgh—Chamber of Commerce for Greater Pittsburgh Luncheon on U.S. trade policy regarding the enlarged EEC.

May 22 — Saginaw, Mich. — Exchange Club's World Trade Week Luncheon.

May 22—St. Louis — World Trade Luncheon.

May 22 — San Diego — Propeller Club's World Trade Week observance.

May 22—San Francisco—Propeller Club's Maritime Day Luncheon.

May 23—Beaver Falls, Pa.—Chamber of Commerce's World Trade Week Luncheon.

May 23 — Chicago — International Trade Club meeting on Trade With Southeast Asia.

May 23 — Denver — World Trade Symposium.

May 23—Detroit — Optimist Club Trade Week observance.

May 23—Hauppauge, N.Y.—World Trade Club meeting, Colonie Inn.

May 23—Memphis — World Trade Council's World Trade Week observance.

May 23 — Milwaukee — Ninth annual Wisconsin International Trade Conference.

May 23 — Montreal, Can. — FCIB Luncheon & Roundtable Conference on International Finance, Credit, Collection & Exchange Problems, Queen Elizabeth Hotel, noon.

May 23 — Newark, N.J. — Annual New Jersey World Trade Luncheon, Robert Treat Hotel.

May 23 — Reno, Nev. — Exchange Club's World Trade Week Luncheon.

May 23—Saginaw, Mich. — Downtown Lions Club World Trade Luncheon.

May 23 — St. Paul — Upper Mid-West World Trade Day.

May 23—Santa Clara, Cal.—World Trade Club and Chamber of Commerce-sponsored World Trade Week Luncheon.

May 23—Seattle—Commerce/SBA seminar on financing export sales.

May 23—Wyandotte, Mich.—South Wayne County Chamber of Commerce World Trade Luncheon.

May 24 — Atlanta — Georgia Int'l Trade Assn.'s annual observance of World Trade Week, Atlanta Motor Hotel, noon.

May 24—Biloxi, Miss.—Mississippi Marketing Council's World Trade Week Forum and Banquet, Broadwater Beach Hotel.

May 24 — Boston — International Center of New England's World Trade Week Forum.

May 24—Chicago—Report of Hong Kong Investment Mission of the Chicago Assn. of Comm. & Industry.

May 24—Chicago — Kiwanis Club World Trade Week Luncheon, LaSalle Hotel.

May 24—Cleveland—World Trade Week Dinner.

May 24—Grand Rapids, Mich.—Chamber of Commerce World Trade Forum on Trade Legislation and Negotiation, Pantland Hotel.

May 24 — Kansas City — World Trade Week Banquet honoring Mexico, Alameda Plaza Hotel, 7 p.m.

May 24 — Los Angeles — World Trade Week Luncheon.

May 24—New York—"The U.S. International Economic Role in the Post-Vietnam Era," World Trade Institute. Contact: D. Moffit at 212-285-4452.

May 24 — North Peoria, Ill. — Rotary Club's World Trade Week Luncheon, Heritage Club.

May 24 — Philadelphia — Foreign Traders Assn. World Trade Dinner.

May 24—Reno, Nev.—Lions Club World Trade Luncheon.

May 24—Rockford, Ill.—First National Bank's seminar on Machine Tool Trade with Eastern Europe.

May 24—St. Louis—World Trade Club Dinner.

May 24 — Syracuse — Tri-City World Trade Conference and Dinner, LeMoyne Inn.

May 25 — Chicago — American Institute of Industrial Engineers meeting on "Multinationals and the Changing World Economy.

May 25—Detroit—Greater Detroit Chamber of Commerce World Trade Luncheon.

May 25—Savannah—World Trade Luncheon, First Federal Penthouse, 12:30 p.m. and Maritime Day Banquet, DeSoto Hilton, 7:30 p.m. Sponsors: Propeller Club, Port of Savannah.

June 13-14 — New York — "Using Foreign-Based Insurance Companies and Free Trade Zones to Reduce Costs and Increase Profits," World Trade Institute. Contact: D. Moffit at 212-285-4452.

Worldwide Business Services

International trade specialists in the Department of Commerce and Foreign Service Officers in the U.S. Embassies and Consulates around the world are continually developing specific commercial opportunities through which American companies can find buyers, agents, partners or investors overseas. One of the major means for communicating these opportunities promptly and accurately to the U.S. business community is through the columns of this magazine.

The section that follows presents details about U.S.-sponsored overseas exhibits, licensing and joint venture proposals, opportunities to sell to foreign firms and government agencies and appoint agents, details on major construction and expansion projects, and notices of U.S. visits by foreign buyers.

U.S. Promotions Overseas

Power and Energy Systems Technical Sales Seminar to Brazil and Argentina. July 23-31. Emphasis will be on equipment and planning required to supply vital energy for industrial plant uses, as both nations are embarked on manufacturing programs and development of additional power sources. Brazil's 1973 import market for power and electrical equipment is estimated at more than $250 million. Argentina has under way a 10-year program of electrical expansion, which will require an investment of more than $2.6 billion. Call Roger Turner, 202-967-2346.

Electric Power Transmission and Distribution Equipment Trade Mission. Kenya, Zambia, Zaire, Nigeria. Aug. 11-24. Government plans for expansion of urban and rural distribution systems will require increased inputs of foreign source equipment over the next five years. Adequate supplies of hydroelectric power exist. The need is for transmission and distribution equipment and components. Technical or state-of-the-art presentations will be included during the promotion. Call E. Lee Carteron, 202-967-2973.

Medical Equipment. Mexico City Trade Center. Aug. 14-17. Mexico's Social Security Institute has major expansion plans for its nationwide system. Present imports of $17 million are expected to double within five years. Call Porter Clary, 202-967-5040.

Housewares. Tokyo Trade Center. Aug. 20-25. Japan's 105 million people with more purchasing power than ever before represent a significant new target for U.S. exporters of housewares. Call Maury Shea, 202-967-2461.

Printing and Graphic Arts Equipment Exhibit. U.S. Regional Trade Development Center, Buenos Aires. Aug. 27-31. The printing and publishing industries in Argentina are a well-developed, important sector of the economy. However, 70-80 percent of the machinery for these industries has to be imported. Call Vicky Eicher at 202-967-4580.

Security and Safety Equipment Exhibit, Sydney Trade Center. Aug. 27-31. In the months ahead, U.S. manufacturers of industrial and commercial security and safety equipment will find Australia offering even better sales opportunities than in recent years. U.S. products, which already enjoy a fine reputation for quality, have become more price competitive due to the recent revaluations of both the U.S. and Australian currency systems. The Australian market for security and safety systems is now at the beginning of an expected upsurge in demand. At present consumption is in excess of $50 million annually. Call John Klingelhut at 202-967-3876.

Algiers International Trade Fair. Aug. 31-Sept. 16. The United States will participate in this major trade event, an unparalleled opportunity to enter a $1.5 billion import market. All product groups will be included. Call David Christensen, 202-967-2396.

LASER 73. Munich. Sept. 4-7. Germany is among the fastest growing markets for lasers and electro-optics in Europe. Growth this year of this $120 million market should be 30-50 percent; the U.S. controls 80 percent. Call Roswitha Augusta, 202-967-3748.

Medical Management Systems and Equipment. Frankfurt Trade Center. Sept. 10-14. Germany's hospital modernization and expansion program for 1973 to 1975 is expected to be well over $2 billion. Prospects look good for U.S. producers of highly advanced and sophisticated equipment. Call Don Schmadel, 202-967-2177.

Building Materials and Equipment Trade Mission. Belgium, Switzerland, The Netherlands. Sept. 10-21. Excellent markets exist for subject equipment, owing to Government emphasis on construction of new housing, apartment complexes and commercial office buildings. Additional interest has been expressed, by the private sector, in modular housing systems. Call Herbert Socks, 202-967-3846.

World Fishing Exhibition. Vigo, Spain. Sept. 12-19. Vigo, the home of the Spanish fishing fleet, offers an excellent market to U.S. manufacturers of navigation equipment, communications equipment, power units, controls and both on-board and plant fish processing equipment. Call Bob Wallace, 202-967-3822.

International Aerospace Show. Sao Paulo. Sept. 14-23. The Brazilian Government is supporting this first aerospace fair. The focus of the U.S. exhibition will be on ground and airborne equipment and instruments, airport equipment, and aircraft parts, assemblies and accessories. Call Jim Hoye, 22-967-3871.

Industrial and Commercial Refrigeration and Airconditioning Equipment and Components. Paris Trade Center. Sept. 17-21. Research indicates that the French market for refrigeration and airconditioning equipment is expanding at a rapid rate. The market in 1971 was valued at $137 million, and is expected to reach an annual level of almost $200 million by 1975. Contact W. S. Gaines, 202-967-4414.

Frozen Food Products and Distribution Machinery. Tokyo Trade Center. Sept. 17-22. Process freezers, automatic product control and handling systems for cold storage warehouses, and refrigerated showcases will be the focus of this exhibition. Estimated at $10-15 million for imported equipment in 1971, the Japanese market for this product category is expected to grow considerably in the next few years. Call Randy Miller, 202-967-2461.

PRINTEX '73. Stockholm Trade Center. Sept. 24-28. Exhibiting printing machines, bookbinding equipment, reprographic equipment, related special purpose computers and peripheral equipment, and graphic arts supplies. The Nordic area represents an $80 million market for related products, with growth rates in Denmark, Finland, Norway and Sweden ranging from 5-10 percent per year for such products. Call Ed Walls, 202-967-4256.

Nuclear Instruments and Apparatus Exhibition. U.S. Regional Trade Development Center—Buenos Aires. Oct. 1-5. Equipment sought for exhibition will complement the relatively limited local production and will reflect cognizance of trends pertaining to local industrial, professional, academic and governmental developments and objectives. The exhibit promotion will cover the River Plate Region, particularly the market in Argentina. Call George Pollard, 202-967-5010.

Scientific Instrumentation. Beirut Regional Trade Development Office. Oct. 8-12. An opportunity for up to six firms to establish representation or introduce new products in the growing Middle East market. Call John Bodson, 202-967-5767.

ENVITEC '73. Duesseldorf. Oct. 8-14. This environmental protection show, covering air, water, and noise measurement and control equipment will be held at the new Duesseldorf fair grounds. Protecting the environment is a major concern in Germany. Approximately $9 billion will be spent during the 1971-1975 period for pollution equipment. Call Robert Levine, 202-967-4056.

Food Processing, Packaging Equipment and Supplies. Milan Trade Center. Oct. 9-13. New living patterns and rising standards are resulting in increased food consumption and a demand for convenience foods. This show is scheduled concurrently with the large IPACK-IMA international packaging exhibition. Call Sam Spaulding, 202-967-4508.

Sales opportunities in 14 U.S. commercial exhibitions, 20 shows at the 12 U.S. Trade Centers, and 4 Trade Missions are being offered to present and potential U.S. exporters between now and January 1974.

Each Trade Center exhibition is limited to one particular line of products and centers are located in Beirut, Buenos Aires, Frankfurt, London, Mexico City, Milan, Paris, Singapore, Stockholm, Sydney, Tehran, and Tokyo. For further information on the Trade Center shows described or for more facts on U.S. exhibitions, **write:** *Overseas Operations, BIC-218, U.S. Department of Commerce, Washington, D.C. 20230.*

U.S. specialized trade missions are comprised of groups of U.S. businessmen organized by the U.S. Department of Commerce to travel abroad to promote the export of U.S. goods and services produced by their particular industry. **Write:** *Trade Missions, BIC-252, U.S. Department of Commerce, Washington, D.C. 20230.*

Ljubljana Electronics Rair. Ljubljana, Yugoslavia. Oct. 9-13. The 20th international exhibition of "Electronics 73" promises to be an excellent opportunity to take advantage of the growing market for electronic components and equipment in Yugoslavia and surrounding countries. This prestigious international event draws an audience of buyers from both Western and Eastern Europe. Call Beryl Cohen, 202-967-4508.

Audio - Visual Equipment. Frankfurt Trade Center. Oct. 11-16. Use of audio-visual equipment is expected to reach approximately $300 million by 1975. U.S.-made equipment is in the forefront of developments for the West German market. This exhibition is to be held concurrently with the Frankfurt Book Fair. Contact Loretta Allison, 202-967-2177.

Chemical Processing Equipment Trade Mission. Italy and Spain. Oct. 13-24. U.S. producers will find excellent market opportunities in both countries, as chemical and related industries there continue to reflect rapid growth. The latter is in keeping with the general economic/industrial surge in both Italy and Spain. Call Joseph Mueller, 202-967-3742.

Sporting and Leisure Goods Exhibit. Paris Trade Center. Oct. 15-19. France, with a standard of living that has doubled since World War II, now has the fastest growing economy in Western Europe. Rising personal income and more free time resulting from longer paid vacations and a shorter work week have created a boom in the French leisure goods market. Contact Edward Kinnear, 202-967-5382.

Metallurgy Equipment and Instrumentation. Mexico City Trade Center. Oct. 22-26. The Mexican market for metallurgical equipment and instrumentation is expected to grow by about 7.5 percent per year in the foreseeable future, with imports from the U.S. totaling about $22 million in 1974. The largest project in this area is the integrated 1.5-million-ton steel complex at Las Truchas, a $500 million scheme due to be finished in 1980. Call Carolee Heileman at 202-967-5020, or write her at BIC-242, U.S. Department of Commerce, Washington, D.C. 20230.

Plant Maintenance Safety and Security Equipment. Stockholm Trade Center. Oct. 22-26. Manpower shortages and high labor costs create strong demand for advanced maintenance equipment. Plants and municipalities require latest equipment to upgrade operational safety and security. Telephone Bill Beiring, 202-967-3838.

Technology 73. Tel Aviv International Trade Fair. Oct. 23-31. Three product groups will be exhibited: instrumentation electrical power generating equipment, and material handling equipment for commercial aircraft. Call Franc Manzolillo, 202-967-3752.

Hospital/Medical Equipment, Tehran Trade Development Center, Nov. 3-7. Commerce is opening its newest Center in the booming economy of Iran, fastest growing market for U.S. exports in the Middle East. U.S. exports jumped 84 percent in the last three years to $600 million, making U.S. Iran's top supplier. Improving health care services is the number one priority in the recently announced Iranian Fifth Plan. Government health and medical services expenditures will be quintupled to $1.7 billion during the next five years. Imports of medical equipment are growing at 20 percent per year, fastest growth sector in the economy. Within three years they are expected to increase from $41 million to more than $70 million. Call Don Ryan, 202-967-4652.

Advanced Technology. Milan Trade Center. November 6-10. Featured will be lasers, electro-optics and advanced thermal measurement equipment. The U.S. share in this market is already high and demand is rapidly growing. The show will be promoted to a wide audience including industrial and military research facilities as well as laboratories in hospitals, universities and state research institutes. Call Robert Wallace, 202-967-3822.

Environmental Pollution Control Equipment. Osaka Fair Grounds. Nov. 7-12. Reflecting the high priority Japan attaches to its increasing environmental pollution control problems, Prime Minister Tanaka has indicated their solution will be a major objective of his administration. Commerce's participation in this event will focus on air, water, and solid waste pollution control equipment. Call Bob Levine, 202-967-4057.

SIMO (International Office Equipment Fair). Madrid. Nov. 9-18. SIMO is the leading Spanish fair for business and data processing equipment held annually in November. The 1973 event will be the 13th in the series. This fair should afford U.S. firms an excellent opportunity for market exposure to end users as well as prospective agent-distributors in the flourishing Spanish market. Call Ann Corro, 202-967-3958.

Systems for Automation in the Metals Industries. Frankfurt Trade Center. Nov. 12-16. Automation systems and components are in demand in West Germany by the machine tool industry and other metal industries, from iron and steel production to finished product manufacturing. Call Charles M. Whitley, 202-967-4001.

Educational Equipment and Materials Specialized Trade Mission to Lebanon, Saudi Arabia, Kuwait, Bahrain, Qatar, and Abu Dhabi. Nov. 18-Dec. 6. Planned large-scale development of educational facilities financed by growing oil revenues of these increasingly affluent countries offers opportunities for sales of U.S. equipment, materials, and services. Call John Bodson at 202-967-5767.

Industrial and Scientific Instruments, and EDP and Business Machines including Reprographics. TECHSPO '73. Bangkok. Nov. 26-30. These two categories of products are important to the continued growth of Thai business, commerce and industry. Participants will have an opportunity to participate in technical symposia in their respective fields. Call Bruce Sever, 202-967-5546.

Systems '73. Munich. Nov. 27-30. Europe's most important computer exhibition will promote the latest EDP hardware, software, and accessories to key end-users in a 24-country marketing area. Demand in West European countries is projected to reach $4 billion in 1974. Ambitious national programs to sharply increase computer installations throughout Eastern Europe promise growing sales opportunities for a broad range of electronic data processing equipment and services. Call John Wolf, 202-967-4001.

Micrographic and Document Handling Systems Exhibit, Paris Trade Center. Dec. 3-7. Annual French micrographics purchases are expected to reach $16.5 million by 1976, a substantial rise of 74 percent over 1972. American firms presently lead in supplying the market and this edge should increase as French companies turn to more advanced information handling systems. Call William S. Gaines, 202-967-4414.

Microwave Circuits, Components and Instrumentation. Tokyo Trade Center. Dec. 3-8. Sales in Japan of microwave products were approximately $200 million in 1971 and demand is forecast to expand at 16 percent annually. Liberalization of lines for data transmission is expected to stimulate additional interest in microwave equipment. Call Maurice Shea, 202-967-2461.

Microcircuits, Design Test and Production Equipment. Frankfurt Trade Center. Dec. 10-14. This exhibition is planned to help U.S. firms enter and compete in this expanding, competitive market. U.S. lead time is getting shorter every year. Call Don Schmadel, 202-967-2177.

Light Industrial Packaging Equipment. Beirut Regional Trade Development Office. January 1974. Light industry in Lebanon has grown rapidly in recent years—industrial exports increased by about 25 percent in both 1971 and 1972—and has become increasingly diversified. More efficient packaging systems are in increased demand. Opportunities exist for direct sales and for establishing representation in this growing market. Call Richard Loughlin at 202-967-5767.

Licensing, Investment Abroad

Licensing and investment proposals from foreign firms are listed in these columns. Specific product interests in each proposal are highlighted in bold type to facilitate identification and each proposal is preceded by the appropriate four-digit product number taken from the Standard Industrial Classification (SIC) Manual.

Background information on opportunities abroad and assistance on overseas investments are available from the Office of International Finance and Investment, BIC-287, U.S. Department of Commerce, Washington, D.C. 20230. "P" numbers should be used when responding to specific proposals.

WTDR indicates that a World Traders Data Report containing financial and background information on the foreign firm is available for $5 from the Department of Commerce, BIC-266, Washington, D.C. 20230, or from any Commerce Field Office.

OPIC indicates that the country involved is eligible for investment insurance coverage written by the Overseas Private Investment Corporation. Information regarding applicable coverage may be obtained from OPIC, Washington, D.C. 20527.

AUSTRIA—Building sites suitable for **industries of any kind.** One located at Brikfeld, Styria has excellent highway and rail connections and labor reserves of 2,500 in the area. The other with a total available site of 800,000 square feet has a partially finished plant structure with direct railroad connections and close to a superhighway. Approximately 1,500 person labor reserve is available for this site at Gmunden, Upper Austria. Ing. Hubert Plank, A-8654 Fischbach 18b, Austria. P-73353.

2099, 2800—KENYA—The Kenyan Ministry of Commerce and Industry is seeking U.S. manufacturers to participate in three different opportunities in Kenya. (1) Producer with strong research backing to take part in establishment of a pharmaceutical factory to make **ethical drugs, medicines, veterinary feed additives and parasiticides.** (2) Joint venture to establish a **bakers yeast plant** making 700 to 1,000 tons annually from local molasses. (3) Joint venture to establish an **ethyl alcohol plant** for the export trade using local molasses, 2.6 million gallon annual capacity. Industrial Survey and Promotion Center, Ministry of Commerce and Industry, P.O. Box 30430, Nairobi, Kenya. Further details are in a report available from the Office of International Finance and Investment, BIC-287, U.S. Department of Commerce, Washington, D.C. 20230. P-73334.

2421, 2435—KENYA—Venture to establish combined **plywood and sawmill** in western Kenya. Seeks capital, technical know-how. Proposed enterprise would have access to state owned forests of 1.7 million hectares. Projected annual production is 12 million sq. ft. of plywood, 500,000 cu. ft. of sawn products. Industrial and Promotion Center, Ministry of Commerce and Industry, P.O. Box 30430, Nairobi. P-73354.

2819—IRAN—Seeks license for technical assistance to develop **sulfur grinding mill,** 7,000 tons annual capacity. Medium size firm currently operates mining and milling facilities for calcium carbonate, talc, barium sulfate and red iron oxide. Mr. Nozari, Sherkat Tolipoudre, 86 Ave. Sepha, Tehran. WTDR. P-73344.

2834 — ISRAEL — Seeks licenses from U.S. pharmaceutical firm to produce **medical products** for distribution in Gaza and the occupied West Bank of Jordan. Also wishes to employ experienced technical advisor in pharmaceutical manufacturing. Firm employs 50 people, currently produces variety of pills, ointments, and sterile ampules. Palestine Medical Co., El Bireh, Via Israel. WTDR. P-73324.

2860—KOREA—The Korean Government plans six new petrochemical plants to make **ethyleneglycol, polypropelene glycol, octonal, butanol, phenol, and aniline.** Seeks participation of U.S. firms with technology and equipment. Should apply to Republic of Korea Government before June 30. Report from American Embassy giving further details available from Office of International Finance and Investment, BIC-287, U.S. Department of Commerce, Washington, D.C. 20230. P-73338.

2874—CHAD—New company to launch **fertilizer industry** in Chad, seeks joint venture. Contribution of U.S. partner could include capital, equipment, expertise, and management. Chad Government will aid new company in access to Chad market. Rudolph Manasterski, c/o Mr. Coussa, B.P. 28, Fort Lamy. P-73343.

2893 — CARIBBEAN — Seeks joint venture or licensing agreement with experienced U.S. firm for the manufacture of **printing inks** and assistance in obtaining **machinery and supplies.** Future sales estimated at $1 million annually including exports. Notify Office of International Finance and Investment, BIC-287, U.S. Department of Commerce, Washington, D.C. 20230 for transmittal of your interest via the American Embassy. WTDR. P-73333.

2899—INDIA—Licenses to manufacture empty **hard gelatin capsules.** New firm will be formed, estimated capacity 200 million capsules annually. Company will also seek assistance in obtaining machinery and equipment. Organizer is chairman of firm making wire and wire cloth with annual sales of $13 million. S. N. Khaitan, Shalimar Wires Industries Ltd., 27-A Camac St., Calcutta 700016, West Bengal. WTDR. P-73327.

3069, 3531—JAPAN—Major distributor closely associated with Japanese manufacturers seeks licenses for production of **advanced rubber and plastic products for industrial use.** Items include components for oil and gas pipelines, materials for marine equipment and engineering, non-flammable components used in transportation equipment and building materials. Also seeks licenses for **materials handling machinery** and new and advanced **hydraulic and oil pressure equipment.** Eiichi Hirasawa, representative, Planning Department, Nishiyama Rubber Co., Ltd., 7-30-8 Oi, Shinagawa-ku, Tokyo 140. WTDR. P-73335. Report with further details available from Office of International Finance and Investment, BIC-287, U.S. Department of Commerce, Washington, D.C. 20230.

3079—AUSTRIA—Seeks licenses for the production of **lavatories from melamine resins** and contacts with U.S. suppliers of the material. Firm established 1960, employs 200, currently makes wide range of bathroom accessories from plastic materials. Metall- und Kunststoffwerk Weibern, A-4675 Weibern, P.O.B.7. P-73336.

3079 — GERMANY — Seeks licenses for production of **plastic containers (jerry cans)** and special closures for them. Firm founded in 1968, has 75 employees, $2 million annual sales, currently manufactures plastic containers. Erich Elfeld, Dekalit Plastik, 2091 Ashausen, Hamburg. P-73345.

3433—SWITZERLAND—License to manufacture **incinerators using the pyrolysis process.** Firm produces machinery for chemical, water treatment, and related applications. Maintains modern, extensive facilities. Engaged in development of pollution control equipment. Has around 600 employees. W. E. Meier, Geilinger Stahlbau AG, Schutzenmattstr., 8180 Buelach, Switzerland. WTDR. P-73337.

3443—FINLAND—A small but expanding manufacturer of metal products, established in 1969, is seeking know-how for the production of **autoclaves.** Company, now employing 100, makes industrial heat exchangers, pressure vessels, cranes and steel bridges and had sales of over $1 million in 1971. Scanmet Oy, 37910 Kylmakoski kk. WTDR. P-73326.

3444 — FRANCE — Manufacturer of metallic frames for reinforced concrete and other construction purposes desires licenses for **steel structural products** used in the U.S. but currently unknown in Europe. Company established in 1962, has annual sales of $1.5 million and employs 70. Entreprise P. Dalban, 64-74 rue de Verdun, 69100-Villeurbanne. P-73352.

3530—AUSTRIA—Manufacturing rights for **all types of material handling equipment. Also, license to produce self contained hydraulic units for compaction, removal of garbage.** Entire container is removed by truck when full. Firm is major producer of transportation equipment and parts. Distributor for several U.S. companies. G. N. Levansky, Works Manager, Hastings Deering Ltd., P.O. Box 120, Lidcombe, N.S.W. 2141. WTDR. P-73339.

3545—ITALY—License to produce new,

technically advanced **machine tool mandrels.** Presently manufactures machine tool accessories; is leading European producer in its field. Sells in Europe, other markets. Costruzioni Meccaniche Cioci, Via Stagnacci Bassi, 50010 Badia a Settimo (Firenze). WTDR. P-73329.

3559, 3670—FRANCE—Wants to represent U.S. firms seeking licensees in the **chemical, electronic industries in Eastern Europe and Soviet Union.** Also interested in supplying complete chemical, electronic installations in these countries. Presently imports printing, pulp and paper, electronic equipment and machine tools. Is division of major holding company. Parent firm represents numerous French concerns in Eastern Europe. Bernard Mulot, president, SONOCOM, 28 avenue de l'Opera, 75002 Paris. WTDR. P-73341.

3564—ITALY—Manufacturing rights for **humidifying air cleaners** that can be installed on firm's line of atomizers. Company makes conveying equipment, machinery for food, ceramic, chemical industries. Markets in Italy and Europe. CIBEC S.p.A., 55-57 Via 14 Luglio, 41049 Sassuolo (Modena). WTDR. P-73332.

3573, 3576 — ITALY — Manufacturing rights for **electronic scales (commercial and industrial types); electronic desk computers with programming applications.** Firm reports there is little domestic competition in these fields. Company presently produces electronic computing equipment, radio telemetric systems, data loggers and related products. Tesak S.p.A., 79 Viale Donato Giannotti, 50126 Firenze. P-73340.

3585 — AUSTRIA — Country's largest manufacturer of wire products, builders hardware and other metal and plastic materials desires license or technical know-how agreement with U.S. firms in order to produce **residential ventilating and air conditioning systems.** Currently employs 700 and has sales of about $50 million. American firms planning to contact the company are requested to send copies of their correspondence to the Commercial/Economic Section, American Embassy, 1X Boltzmanngasse 16, A-1091, Vienna. Dipl. Ing. Joerg Leitner, technical manager, Lapp-Finze Eisenwarenfabriken A.G., A-8401 Kalsdorf bei Graz. P-73325.

3585—INDIA—Manufacturing rights for **refrigeration units for trucks, buses, railroad freight and passenger cars.** Could include purchase of essential equipment. Firm presently produces wide range of refrigeration and air conditioning machinery. Manmohan Singh, managing director, Frick India Ltd. (FIL), Jeevan Vihar Bldg., Parliament St., New Delhi. P-73328.

3711 — FRANCE — License to manufacture **heavy-duty, mechanical, airport runway sweepers.** Market in France and Europe. Firm presently produces test benches, generation units; landing gear, hoists and runway sweeping and snow-clearing trucks. Well managed company; employs 820. C. Soule-Nan, director, SOCEA, Division Materiels de Servitude, 3 Quai Leon Blum, 92150 Suresnes, France. WTDR. P-73330.

3811, 3554—UNITED KINGDOM—Manufacturing rights and/or agencies for a **wide range of laboratory and testing equipment.** Interests include apparatus for measurement of effluent and pollution levels in water, air, gases; equipment used to monitor and control industrial and environmental noise; and laboratory testing instruments for the paper, plastics and food industries. Also interested in the production of **paper converting and packaging machinery.** Firm employs 2000. Manufactures flour mill, corrugated box and textile machinery; instrumentation and control equipment. Represented worldwide. Henry Simon Ltd., P.O. Box 31, Stockport, Cheshire SK3 ORT, England. WTDR. P-73323.

4833 — CHAD — Joint venture partner sought to **establish television broadcasting facility and sales of TV sets.** Group has 25-year exclusive rights to engage in this activity. U.S. partner would contribute capital, equipment and expertise. Participation in management welcomed. Chad Government will provide necessary land and office space in return for 15 percent profits during the first five years and 25 percent the remaining 20 years. Rudolph Manasterski, c/o Mr. Coussa, B.P. 28, Fort Lamy. WTDR. P-73342.

7011—AUSTRIA—A **240-bed hotel** is planned in the vacation center of Fischbach in the state of Styria. Project estimated to cost $2.5 million and include a swimming pool, restaurant, bowling alley, bar, ice skating rink, Sauna bath, beauty parlor, and other features. Collaboration with U.S. firms in any aspect of this proposal welcomed. Ing. Hubert Plank, A-8654 Fischbach 18b, Austria. P-73351.

7011 — DOMINICAN REPUBLIC — The Central Bank is currently developing **three tourist zones to contain hotels, apartments, sports areas and "vacation villages."** Total cost of the three projects to be located in two zones on the north coast known as the Costa de Ambar and on the south coast known as the Costa Caribe is estimated at $134 million. Infrastructure for these developments is expected to be financed by a $22 million World Bank loan. Investors, hotel management organizations and construction firms are particularly sought, but expressions of interest from tour agencies, suppliers of hotel equipment and furnishings are also desired. Lic. Francisco J. Cruz, Director de INFRATUR, Banco Central, Santo Domingo. P-73349.

7011—GREECE—Aggressive and well-established importer-exporter of equipment and vehicles is planning a **470-bed hotel** on Corfu Island estimated to cost $4.3 million. Desires management contract with major U.S. hotel chain; will also consider lease arrangement. In conjunction with this development, desires catalogs and price lists for swimming pool, food service, laundry, waste disposal and water softening equipment. P. Manessis Bros. S.A., Aghios Stephanos, Corfu Island, Greece. P-73331. OPIC.

Developing Nations Ask UNDP Assistance On 19 Projects

Fourteen developing nations have submitted nineteen preliminary requests for financial and technological assistance from the United Nations Development Program for major preinvestment projects.

This preliminary information is made available to U.S. firms to enable them to review the project as it was submitted to the UNDP, so that they may determine their interest as potential bidders or get a better understanding of the industrial and economic plans of the requesting countries. U.S. firms are cautioned that these projects have not yet been approved, and no UNDP executing agency has been designated to implement them. The specific requests are listed below.

Interested firms may obtain summaries of these projects from: Trade Opportunities Staff, BIC-267, Office of Export Development, U.S. Department of Commerce, Washington, D.C. 20230. Each request must include a pre-addressed label and clearly identify the project by: number, country, and nature of work involved.

ARG/70/543/A/01/12 — ARGENTINA —**Agriculture and livestock development** in the Northwest, Salta;

ECU/72/022/A/01/14 — ECUADOR — Strengthening the **health** sector;

GUA/72/004 — GUATEMALA — Creation of a unified **food control laboratory;**

GUA/72/012/A/01/40—GUATEMALA —**Export promotion;**

IND/73/001//A/01 — INDIA — Development of a **computer system** for the Delhi Region, as part of the National Computer Program;

IND/73/002/A/01 — INDIA — Installation of a **computer system** at the Tata Institute of Fundamental Research, Bombay, as part of the National Computer Program;

IND/73/003/A/01 — INDIA — Development of a **computer system** for Bangalore Region as part of the National Computer Program;

IND/72/041/A/01/37 — INDIA — Establishment of a **pilot and demonstration plant in Hydrostatic Extrusion and Material Synthesis** at the National Physical Laboratory, New Delhi;

IRQ/72/007/01/01—IRAQ—Strengthening of the **Building Research Center,** Baghdad;

KMR/72/019/C/01/14 — KHMER REPUBLIC — Preparation of a **master plan for Phnom Penh;**

MEX/72/011/A/01/40 — MEXICO — **Export promotion;**

MEX/72/014/C/01/37 — MEXICO — Development of the **capital goods** industry, Phase II;

NEP/72/007/A/01/37 — NEPAL — Establishment of an **industrial services center,** Kathmandu;

POL/71/515/B/01/12 — POLAND — **Poultry breeding** and organization of **egg and poultry meat production;**

SAU/72/002/B/01/15 — SAUDI ARABIA — Training in **civil aviation;**

SUD/72/024/A/01/37—SUDAN—**Sudan Railways** operational assistance;

URU/72/012/A/01/12 — URUGUAY —Strengthening of the **Veterinary Research Center,** Montevideo;

YUG/72/017/A/01/12 — YUGOSLAVIA — Development of a **research, demonstration and educational farm** for meat and milk production in the Sava River Valley (S.R. Croatia);

RAS/72/158 — ASIA — Development support **communication service.**

Foreign Trade Opportunities

These trade opportunities are based on reports received from the U.S. Foreign Service by the Trade Opportunities Division, BIC-267, U.S. Department of Commerce, Washington, D.C. 20230. The commodities in which foreign firms have interest are indicated by the five-digit numbers and commodity classifications which are from the Standard Industrial Classification (SIC) Manual and the Numerical List of Manufactured Products, 1967 Census of Manufacturers, used extensively by Government and industry.

U. S. firms should be aware that the listing in Commerce Today *of opportunities to trade in specific commodities and technical data does not necessarily imply approval of their export by the Department of Commerce pursuant to the Export Administration Act of 1969. Applicable export licensing regulations must be followed.*

Every effort is made to include only firms or individuals with good reputations. However, the Department cannot be responsible for any trade relations.

Abbreviations used are: I (importer); D (distributor); M (manufacturer); A (agent); R (retailer). To avoid delays, requests for loan material should specify the country, commodity and foreign government agency.

WTDR indicates that a World Traders Data Report on this specific firm is available for $5 from the U.S. Department of Commerce, BIC-266 Washington, D.C. 20230. A WTDR is a trade profile which contains commercial information, including financial references, on an individual foreign firm. Orders must include complete name and address of the subject firm and be accompanied by payment. Further information concerning WTDR's and request forms is available at local Commerce Field Offices.

The mark (•) indicates that this trade opportunity is a request for bids by a foreign government agency.

Direct Sales

Foreign private firms and government agencies are interested in direct purchases of these products. See also "Representations" listing.

Field crop farms

01190 — ITALY — Field seeds grain seeds. Wishes to buy for resale. Fratelli Martini E C Spa (I, D, M), 2614 Via Emilia 47020 Longiano (Forli).

Livestock farms

01390 — ITALY — Oil seeds. Wishes to buy for resale. Fratelli Martini E C Spa (I, D, M), 2614 Via Emilia 47020 Longiano (Forli).

Chemical and fertilizer mineral mining

14740 — ECUADOR — 3,000 tons muriate of potash, fine or coarse grain. Intended for use as ingredient in fertilizers manufactured by Fertisa which provides sales throughout Ecuador. Price quotations by cable. Attn: Cesar Merino-Barriga, Mgr. Fertisa—Fertilizantes Ecuatorianos S.A. (M), P.O Box 6148. Cable: Fertisa Guayaquil.

14750—ECUADOR — 4,000 tons, phosphate rock, 72 B.P.L. Intended for use as ingredient in fertilizers manufactured by Fertisa, which provides sales throughout Ecuador. Price quotations by cable. Attn: Cesar Merino-Barriga, Mgr. Fertisa—Fertilizantes Ecuatorianos S.A. (M), P.O. Box 6148. Cable: Fertisa Guayquil.

Construction

• 16100—VENEZUELA — Prequalification for construction of a four-km stretch of the Cota Mil Freeway in Caracas. The work consists of 2,050,000 cu.m of excavation; 1,250,000 cu.m of fills; 2,050 cu.m of concerte for drains; 4,500 cu.m. of concrete for walls; 800 meters for concerte gutters; 2,950 meters of tubing for superficial drainage; 20,750 meters of concrete curbs; 9,950 meters of concrete gutters; 71,630 m.t. of asphaltic concrete aggregate for pavement; 8,250 meters of lateral defenses; and 9,550 sq.m of bridge construction. The tender number for the freeway is L-73-V-1; and L-73-V-2 for bridges. Prequalification deadline is June 23 at 10 a.m., in the library of the Ministerio de Obras Publicas, Mezzanine, Edificio Camejo, Esquina de Camejo, Caracas. Firms must present a letter of intention to participate, copies of constitution and by-laws, financial statements and balance sheets, list of technical personnel and equipment available, and list of similar works executed.

Canning, preserving foods

20352 — SINGAPORE — Canned sweet mustard pickles. Khim Thye Trading Co. Mr. Ho Lee Chong, Mgn. Prop. (I, D), 53-1, Craig Rd., Singapore 2.

20354 — SINGAPORE — Canned goods; canned salad dressing in 1 gallon plastic tin; and canned pure mayonnaise in 1 gallon capacity. Khim Thye Trading Co. Mr. Ho Lee Chong, Mgn. Prop. (I, D), 53-1, Craig Rd., Singapore 2.

Food preparation

20941—KENYA—Animal tallow: beef or mutton tallow and oleo stearine. Min. titre 42 degree, FAC 1 T 3, for use in manufacture of laundry soap; firm purchases 1,200 to 1,500 tons per yr. Jethabhai Industrial Works (I, M,), P.O. Box 82267 London Rd., Mombasa.

20942 — ITALY — Meat meal. Wishes to buy for direct use in its plant. Fratelli Martini E C Spa (I, D, M), 2614 Via Emilia 4720 Longiano (Forli).

20943 — ITALY — Fish meal. Wishes to buy for direct use in its plant. Fratelli Martini E C Spa (I, D, M), 2614 Via Emilia 47020 Longiano (Forli).

Broad woven fabric mills, cotton

22114—BELGIUM — Denims, colored, cotton yarn fabrics, clothing basis 28—in. Maklarex S.A. (A), 195 Rue Royale, 1030 Brussels.

22115—HONG KONG—One million yds. permanent press cotton twill for pants; one million yds. fine cotton shirting; one million yds cotton denim, 10 oz. weight and up. Lai Sun Garment Co., Ltd. (M), 478, Castle Peak Rd., Kowloon, Hong Kong.

22116—BELGIUM — Corduroy fabrics, cotton. Maklarex S.A. (A), 195, Rue Royale, 1030 Brussels.

Broad woven fabric mills, manmade fiber, silk

22210—FRANCE — Fabrics for raincoats sportwear. Les Manufactures de la Nation (M, I,), 15, Rue Martel, 75010 Paris.

22212—BELGIUM — Polyester fabrics, 100-0/0 filament including taffetas, twills and industrial type. Maklarex S. A. (A), 195, Rue Royale, 1030 Brussels.

22212 — JAPAN — Air filter media made of glassfiber. Wishes to incorporate this non-flammable glassfiber air filter media into its automatic winding roll air filter serviceable for air-conditioning in buildings, factories and underground markets. Nihon Spindle Mfg. Co., Ltd. (D, M), 4-5-18 Nihombashi Honcho, Chuo-Ku, Tokyo 103. Attn: Mr. Toshio Uchii, Sales Mgr.

Narrow fabrics, other smallwares mills

22411 — TAIWAN — One million pirns (bobbins) with replaceable plastic sleeves (stainless steel core), 450mm in length. Products to be imported for resale. Quote competitive prices with catalogs, price lists as soon as possible, as purchase expected to be completed within month. Haneosum Enterprise Co., Ltd. (I, D), 6th Fl., 114 Nanchang Rd., Sec. 1, Taipei (107).

Yarn, thread mills, products

22810 — NIGERIA — Polyester cotton blended yarns, 65/35 percent or 67/33 034:3,5. English counts: NE 45/2, consumption 20-25 tons monthly; NE 45/1, 8-10 tons monthly; NE 40/2, 5-8 tons monthly and NE 40/1, 5-8 tons monthly for spinning looms. Price quotations desired c.i.f., Lagos. S.T. Matta, Purchasing Mgr., President Clothing Co., Ltd. (I, D), 221 Apapa Rd., P.O. Box 905, Lagos.

22811—BELGIUM—Carded cotton yarn, finished in yarn spinning mills. Maklarex S.A. (A), 195, Rue Royale, 1030 Brussels.

22831—AUSTRALIA—Yarn for knitting into women's wear fabric, pure wool 1/15 or 1/18. Needs 1000 lbs. and should increase on location of acceptable supplier. Anne Harding Pty. Ltd., Attn: David Randall (M, R, D), 105 Kippox St., Surry Hills, NSW 2010.

22841 — SINGAPORE — Cotton sewing Threads (60/2, 60/3, 50/2, 50/3) of 1,000 yds x 10,000 yds. Seeks agency representation in addition to direct purchase. South China (I&E) Corp. Pte. Ltd. Mr. Yam Kam Cheng, Mgr. (I, E, D), 43 N. Canal Rd., Singapore—1; Cable: 'NAMTEX'.

Textile goods

22991 — BELGIUM — Nonwoven textiles, bonded fiber fabrics. Maklarex S.A. (A), 195, Rue Royale, 1030 Brussels.

Fabricated textile products

23990 — AUSTRIA — Special outdoor sleeping bags giving shelter in bivouac for campers, emergency and rescue troops, etc. Chemie & Huette Ges.M.B.H. Dry Wall Div., Mr. M. Percic (I, A), Ebendorferstrasse 10, A-1010 Vienna.

Sawmills, planing mills

24212 — JAMAICA — 50,000 sq. ft. of pine or cypress lumber; two in. or 1-1/2 in. thickness for making door frames and solid doors. This requirement is for value of US$ 15-20,000. Recently increased production capacity and is seeking reliable source of supply for lumber to service both Jamaican and other Caribbean countries' demand for its products. Plyber Co. Ltd. (I, R, M), P.O. Box 9, Kingston.

24262 — JAMAICA — Hardboard sheets, one-eighth in. thick, to be used to manufacture flush panel doors. Needs 2,500 sheets. Plyber Co. Ltd. (I, R, M), P.O. Box 9, Kingston 3.

Millwork, veneer, plywood prefabricated structural wood products

24322 — JAMAICA — Plywood sheets for making flush panel doors and kitchen cabinets. Specifications: three-eighths inch thick. Plyber Co. Ltd. (I, R, M), P.O. Box 9, Kingston 3.

24325 — SWEDEN — Hardwood veneer, all types. WTDR 4/73. Edward Hulten AB (I, D), Box 165, S1434 O0 Kungsbacka.

24326 — SWEDEN — Softwood veneer, all types. Edward Hulten AB (I, D), Box 165, S1434 00 Kungsbacka. WTDR 4/73.

Household furniture

25112 — FRANCE — Wood living room, library, sunroom and hall furniture (chalet). F.M.B. (I, M, R), Quartier Du Bridon—Souspierre—26160 La Begude De Mazenc.

25117 — FRANCE — Wood Outdoor Furniture. F.M.B. (I, M, R), Quartier Du Bridon—Souspierre—26160 La Begude De Mazenc.

Public building, related furniture

25312 — FRANCE — Public building and related furniture, wood. Direct purchase & agency. S.F.M.B. (M, R, I), Quartier Du Bridon—Souspierre—26160 La Begude De Mazenc.

Paper mills

26211 — INDONESIA — Standard newsprint in sheets and rolls. N.V.P.D. Sinar Baru (I, D), JL. Brigjen Katamso 39, E,F,G, Medan. WTDR in prep.

26214—TURKEY—Unsensitized dyeline base paper for conversion to Diazo paper: paper weight 78 gr/m2; paper widths: 75.5 cm., 100.5 cm., 110.5 cm. (Approx. 90 percent wil be 100.5 cm. wide). Tear: according to Elmendort method, machine direction: 480-520 nn; cross direction: 150-200; weight of each bobbin: about 300 kgs. Shipment to be made in lots of 60 tons or more. Annual requirement: about 300 tons. Desires price quotations on f.o.b. and c.i.f. basis. Main factors will be price, ability to deliver immediately. Vedat Gencturky (M), Luleci Hendek Caddesi 89-91, Karakoy, Istanbul.

26216—ISRAEL—Greaseproof paper 40-43 grm/m2 in reels: 50-70 cm. width Q. Gellis Paper Products Co. (I, M, A), Hakishon 27, P. O. Box 324 Beni Brak. Requests c.i.f. prices, samples as well as strong packing of material.

26216 — JAMAICA — Mill overruns of bond paper. Request quotations c.i.f. Kingston. The Art Printery Ltd., Contact: Danny Burrowes (M), 87 Tower St., Kingston.

26217 — CAMEROON — Kraft paper in rolls: 70/72 gram weight, up to 130 centimeters wide. Annual consumption 3600 metric tons, for making bags. Correspondence in French. Societe Camerounaise de Cartonnages et de Fournitures de Materiel Scolaire et de Dureau (SOCARTO) (M, I, D), B.P. 5028, Douala.

Paperboard mills, products

26310 — JAMAICA — Manila tag cardboard, shade 371, 19 lbs. (245 grs/sq. m.). Samples, quotations c.i.f. Kingston requested. Jamaica Boxmaking Co. Ltd., Attn: Owen West (I, M), 6 Lissant Rd., Kingston.

26311 — JAMAICA — Cardboard in flat sheets for making cardboard containers in the packaging industry. Request samples, quotations in tons c.i.f. Kingston. Manufactures cardboard containers for sale to local market. Khaleel's Paper Products (Successors) Ltd. (I, M), 4 Bell Rd., P.O. Box 24, Kingston 11.

26312 — BELGIUM — Bleached kraft board for making mandrels. Cartonnages Hanstra et Ets. Greyson Reunis Sprl (M), Perbais-Walhain 5865.

Converted paper, paperboard products

26414 — JAPAN — Pressure sensitive tapes. Two items (1) kraft paper, two in. width, 164 ft. length roll, price (c.i.f. plus six percent duty) not exceeding 35 U.S. cents per roll; (2) cloth, two in. width, 82 ft. roll, lowest price range. Tachibana Sangyo Co. Ltd. Attn.: Kunihiko Harada, Mgn. Dir. (I, M), Ishikawa Yoshiten Bldg., 5-10 Ishihara 2-Chome, Sumida-Ku, Tokyo (108).

26414 — SWITZERLAND — Pressure sensitive paper, sheet or rolls, custom and stock, roll label stocks. Decorative products, for resale to printers, stationery shops, and label manufacturers. SIHL Zurcher Papierfabrik An Der Sihl, Attn: Walter Hess. Mgr. (M, D), Ciesshubelstr. 15, P.O.B., CH-80121 Zurich.

26440—GREECE — Low priced wallpapers, no limitation as to designs; roll size approximately 0.54 x 10.20 m, for release to distributors. No deadline on delivery. A. N. Panayiotopoulos (I, A, D), 32 Venizelou St., Thessaloniki.

26451—AUSTRALIA — Office supplies such as electrostatic copying paper, duplicating paper, and novelty lines in office supplies. Planning trip to U.S. in August and would like to meet prospective suppliers. Supreme Office Supplies Pty. Ltd., Attn: Rudy Wildshut (I, D), 8A Swan St., Hamilton, Newcastle, NSW 2303.

General commercial printing

27512 — FRANCE — Commercial printing, gift wrapping paper. Helio Cachan (I, M, R), Route De Longjumeau, 19 Chilly Mazarin.

27518 — FRANCE — Commercial printing, post cards and calendars. Helio-Cachan (I, M, R), Route De Longjumeau, 19 Chilly Mazarin.

Industrial chemicals

28162 — TUNISIA — Direct purchase 1,500 tons of white lithopone pigment with 20 to 30 percent zinc content. Quantity may increase. A. Saidane and Cie. (I, A), 19, Rue Ben Ghedhahem, Tunis.

28180 — CAMEROON — Glycerine; for use in making cosmetics. Standards: DAB 31, Chem-Pure: 99.5%. Needs continuing supply of 10 metric tons shipped every six weeks. Prefers purchase in 50 ton lots. Societe Anonyme De Fabrication De Parfumerie Au Cameroun (SOPARCA) (M, I, D), P.P. 4065, Douala. Cable: SOPARCA-Douala.

28181 — BOTSWANA — Tanning materials used in game tanning processes. Largest game skin tanner in Botswana; interested in immediate purchase. Most important consideration is price since firm hopes to take advantage of devaluation; quality, speed also important. Largest taxidermist in Botswana; operations expanding rapidly with growth potential excellent. Botswana Game Industries (Pty.) Ltd. (R, M), Private Bag 30, Francistown.

28181 — ITALY — Gasoline and lubricating oil additives. Wishes to import on own account and possibly act as exclusive sales agent. Renato Meiohas (I, A), Largo Orbassano 68, 10129 Torino.

28183 — YUGOSLAVIA — 1000 tons of anhydride phthalic acid of quality suitable for production of dioctylphthalate and dibutylphthalate. In two deliveries during current calendar year by ship from U.S. IPLAS, Attn: Mr. Otasevic (M), Krpanova 2, PP 143, 66001 Koper. WTDR in prep.

28185—BELGIUM—Reagent grade organic chemicals. Bial Scientific Sprl (A,

D, I), Rue De La Station, 15 Ruisbroek 1610.

28190 — BOTSWANA — Tanning solution. See 28181—BOTSWANA. Botswana Game Industries (Pty.) Ltd. (R, M), Private Bag 30, Francistown.

28197 — BOTSWANA — Sodium sulphide used in tanning operations. See 28181—BOTSWANA. Botswana Game Industries (Pty.) Ltd. (R, M), Private Bag 30, Francistown.

28199—BELGIUM—Reagent grade inorganic chemicals. Bial Scientific Sprl (A, D, I), Rue De La Station 15, Ruisbroek 1610.

Synthetic materials

28216—ZAMBIA—Corvic P65/50 PVC polymer, or equal, to that manufactured by Imperial Chemical Industries (ICI) Ltd., United Kingdom for manufacture of PVC gloves. James North Zambia Ltd. Attn: D. C Christie, Dir. (I, M), P.O. Box 52, Kitwe.

28219 — INDIA — 10 Metric tons high density polyethylene granules equivalent to "Hostalen" grade 5740, for manufacturing tapes. Panchsheel Plastics Private Ltd. (M), 309 Jolly Bhavan, 10 New Marine Lines, Bombay 400020.

28219 — INDONESIA — Polyethylene resin-low density. Firm hopes to buy material as soon as possible and on regular basis. Packing five-ply paper bags with interior plastic lining. C.V. Mahnikam Trading Co. (I, D), JL. Asbengalishcbmwt, Medan.

28232 — SINGAPORE — Rayon yarn (dull and semi-dull 150/40/2) acetate rayon yarn (bright 300/80/2). Desires direct purchase & agency. South China (I&E) Corp. Pte. Ltd., Mr. Yam Kam Cheng, Mgr. (I, E, D), 43 N. Canal Rd., Singapore-1; Cable 'NAMTEX'.

28240—NIGERIA — Nylon stretched (texturized) yarn, denier 70/2, 18 F or 24 F, dyed in buyers shades, consumption 10 tons monthly as well as R. White 1-2 tons monthly for circular and flat knitting machines, polyester set texturized yarn, denier 150 (1-30/32F), dyed in buyers shades, 5 tons monthly as well as R. white 8-10 tons monthly for warp knitting/Raschel machines; and nylon filament, 40 denier (10 filament) deep dull yarn, 8-10 tons monthly for warp knitting machines. S. T. Matta, Purchasing Mgr., President Cothing Co. 5 (I, D), 221 Apapa Rd., P.O. Box 905 Lagos.

28242—AUSTRALIA — Yarn for knitting into women's wear fabric, tetoron viscose, or equal, count 2/30 or acrylic yarn, count 2/30. Dyed to choice or raw state. Needs 5000-6000 lbs. to increase on locating acceptable supplier. Anne Harding Pty. Ltd., Attn: David Randall (M, R, D), 105 Kippax St., Surry Hills, NSW 2010.

28242 — SINGAPORE — Polyester nylon yarn (70/24/2). Wishes to act as distributor & represents and/or agent. South China (I&E) Corp. Pte. Ltd., Mr. Yam Kam Cheng, Mgr. (I, E, D), 43 N. Canal Rd., Singapore-1; Cable: 'NAMTEX'.

Drugs

28314 — BELGIUM — Culture media. Bial Scientific Sprl (A, D, I), Rue De La Station 15, Ruisbroek 1610.

28330 — BOLIVIA — Chemicals, for production of drugs for both human, animal use. Correspondence in Spanish. Socoman S.A. (I, A, D), Casilla 2196, La Paz. Cable: Socoman, La Paz.

Soap, detergents, cleaning preparations, perfumes, cosmetics

28424 — ITALY — Automotive body polishes, cleaners. Wishes import on own account and possibly act as exclusive sales agent. Renato Meiohas (I, A), Largo Orbassano 68, 10129 Torino.

28424 — JAPAN — Resin waxes for floor polishing. Overseas Sales Co., Inc. (Exporter), 22 Uraichiba, Obata, Moriyamaku, Nagoya 463.

28440 — BOLIVIA — Chemicals for production of cosmetics. Correspondence in Spanish. Socoman S.A. (I, A, D), Casilla 2196, La Paz. Cable: Socoman, La Paz.

Paints, varnishes, lacquers, enamels

28516 — AUSTRALIA — Luminous paints which continue excitation after the light source has been removed; for boats, other marine uses. Sportfishing Australia Pty. Ltd. Gausepohl, Mkt. Mgr. (I, D, R), Box 712, 2 Lawson Crescent, Coffs Harbour, N.S.W. 2450.

28516 — BELGIUM — Corrosion resistant products such as tapes, coatings, linings, offering corrosion resistance at all temperatures. Flimex (I), Blvd. Leopold II, 35 Brussels.

28519 — PARAGUAY — Thinners for lacquers. Exclusive agency. Guillermo Wolscam (I, A, R), Yegros 2079, Asuncion.

Gum, wood chemicals

28612 — BOTSWANA — Leather dyes used in game tanning processes. See 28181—BOTSWANA. Botswana Game Industries (Pty.) Ltd. (R, M), Private Bag 30, Francistown.

Agricultural chemicals

● 28700 — INDONESIA — Fertilizers as follows: Urea, minimum 46% N, 3000 metric tons, rock (natural phosphate, minimum 30% P_2O_5, 800 tons, muriate of potash, 60% K_2O, 400 tons, kieseite, 26% MgO, tonnage not indicated. Tender No. 1060/A-3/U/'73; bid deadline June 11, 1973, BU-PN Perkebunan, Jalan Jedenal S. Parman, (SLIPI), Liaison Office PNP IV Plus PNP VI JI Garut, 15/ Jakarta. Specifications may be obtained from the above address for Rupiah 3,500 ($8.50), or when received from Chemicals and Rubber Program, Materials Division, BCABP-458, U.S. Department of Commerce, Washington, D.C. (202-967-3468).

28712—BOLIVIA — Fertilizers. Would also like to obtain representation agreement. Correspondence in Spanish, Portuguese or French. Casa "Cir" de Jacinto Ale Guerrero (R. I. D), Casilla 63, Tarija.

28712 — PORTUGAL — Unpressurized aqua ammonia and nitrogenous fertilizers. Sanivegetal-Servicos Tecnicos Da Sanidade Vegetal, Lda. (I), Rua Serpa Pinto 12 E 23, Evora.

28790 — BOTSWANA — Fungicides, bactericides for tanning purposes. Currently imports 2,000 kilograms per annum from Europe. Interested in immediate purchase; most important consideration is price since firm hopes to take advantage of devaluation; quality, speed also important. Largest tanner and taxidermist in Botswana. Operations expanding rapidly with growth potential excellent. Botswana Game Industries (Pty.) Ltd. (R, M), Private Bag 30, Francistown.

28790 — CZECHOSLOVAKIA — Concentrates from which insecticides, pesticides and herbicides may be produced by mixing locally with appropriate extenders. Correspondence in Slovak, Czech or German preferred; but English acceptable. Slovchemia, Zdruzene Zavody Chemickeho Priemyslu (Associated Works of Chemical Industry) (I), Ing, Juraj Kuka, Technical Dir., Slovchemia, Bratislava, Drienova 24. (Telex: 09290). Interested in acquisition of licenses.

Chemical products

28930—BOLIVIA—Inks for serigraphy. Catalogs desired. Graphic-Art De E. Zuna P. (specialty printing shop, I) Casilla 480, Oruro. Cable Add: Grat, Oruro.

28990 — CAMEROON — Synthetic mineral oil, colorless, for use in making cosmetics, perfumes. Must be totally transparent; company uses 100 metric tons annually. WTDR 4/73. Societe Anonyme De Fabrication De Parfumerie Au Cameroun (SOPARCA) (M, I, D), B.P. 4065, Douala. Cable: Soparca-Douala.

28993 — BOTSWANA — Tanning oils. See 28181—BOTSWANA. Botswana Game Industries (Pty.) Ltd., (R, M), Private Bag 30, Francistown.

28993 — ITALY — Automotive chemicals, rust resisting compounds. Wishes to import on own account and possibly act as exclusive sales agent. Renato Meiohas (I, A), Largo Orbassano 68, 10129 Torino.

Petroleum refining

29110 — CAMEROON — Petroleum jelly for use in making cosmetics, perfumes; company needs 50 metric tons annually. Societe Anonyme De Fabrication De Parfumerie Au Cameroun (SOPARCA) (M, I, D), B.P. 4065, Douala. Cable: Soparca-Douala.

Tires, tubes

30113 — FRANCE — Used retreadable aviation tires for use on agricultural vehicles. Sodipneu—Attn: Mr. Jean Astier (A, D, I), 1, Rue Edouard Manet, 71100 Chalon-Sur-Saone.

Fabricated rubber products

30695—TAIWAN—Life rafts (rubber). Kind John Trading Co., Ltd. (I, M), Ishaqua Lane 85, Chiqg-Hua Rd., Seevdm 1, Taipei.

Plastic products

30794 — FRANCE — Plastic packaging boxes for perfumes, cosmetics which firm also manufactures, imports and sells. Seeks both direct purchase and agent/distributor. Societe Henry Marcy (I, A), 35 Rue Godot-De-Mauroy, 75—Paris 9.

30797 — MONACO — Miscellaneous plastics products; plastics dinnerware, tableware and kitchenware. Direct purchase & agency. Moravia Yachting & Marine (I, A, D), 7 Ave. De Grande Bretagne, Monte-Carlo, Monaco.

Flat glass

32110—CAMEROON—Flat glass, clear, tinted and wire-reinforced. For use by local firm which manufactures doors. Security systems, louvered windows, etc.

Special Action

Each of the following direct sales trade notices is deemed to rate the special attention of American manufacturers and suppliers by the U.S. Commercial Officers overseas.

20522 — SAUDI ARABIA — Salted or sweetened biscuits of 70 to 80 grams net (one or more pieces) wrapped in airtight cellophane to stand at least six months storage in local environment—similar to those given to U.S. military in Vietnam. Biscuits must contain highest possible nutritional value; send samples with quotation c.i.f. Jidda and details on composition of biscuits. Firm wishes import on annual basis, with 4 or 5 shipments within six months of opening of l/c; quantity of first order about 18 million units of 70 to 80 grams each. For resale. Reksm Mohamed Ebrahim Nashar (I, A, D), P.O. Box 79, New St., Jidda.

22812 — MOZAMBIQUE — Super combed 100% cotton combed hosiery twist yarn waxed on cones NE 30/1 E.C.C. bleached white and wet dyed for use by its knitted goods factory at minimum of 150 metric tons per annum. Quotations c.i.f. Quelimane port via Lourenco Marques and Beira requested; buyers decision deadline of May 30. Catalogs, samples solicited. Suppliers urged indicate delivery time. Eavezal—Fabrica De Vestuarios Da Zambezia Limitada (I, M), 86-88 Rua Azevedo Coutinho or P.O. Box 137, Quelimane. Cable Address: Mansur, Quelimane.

24330 — BELGIUM — Wooden pitprops for use in mining in following quantities, lengths and diameters: 12,000 cm (2.5 metric tons) 14-16 cm long, half diameter; 30,000 cm (3 metric tons) 14-16 cm long, half diameter; 18,000 cm (4 metric tons) 14-16 cm long, half diameter. Requests F.A.S. prices per thousand c.m; supplier to deliver 1000 cm lots at given dates at logical U.S. loading ports. Westcott Ltd., Mr. Leslie Schultz (I, Export), Brouwersvliet, 21, Antwerpen - 2000.

28712—ECUADOR—Chemical fertilizers, (NPK) 5,000 metric tons distributed in following formulas (NPK): 10-30-10: 2,000 m.t.; 18-46-0: 1,000 m.t.; 0-46-0: 1,000 m.t.; 12-24-12: 1,000 m.t. Two separate quotations needed (a) in bags of 50 kgms. and (b) in bulk. Schedule: no later than Sept. 30. Purchase terms: letter of credit. Spanish correspondence preferred. Asociacion de Productores de Trigo (ADETRI), Contact: Mr. Anatolio Korolevish, Pres., National Association of Wheat Growers, Roca y Amazonas, P.O. Box 2678, Quito, Ecuador.

35590 — HONG KONG — Equipment and engineering services to produce polyesterene, polystyrene, other plastics. Has decided preference for U.S. equipment; implied that early approach by U.S. firms with specifications and estimates could result in writing of proposal to specify U.S. equipment and would hasten board of directors decision to go ahead on project. Cheung Kong (Holdings) Ltd. (I, M, E), 661 King's Rd., Hong Kong.

35351 — NETHERLANDS — Overhead conveyor systems, chain conveyors (built into the ground), related commodities. Seeks distributorship arrangement for Benelux Area, Netherlands Antilles, and Surinam. Langerak, V.D. Lingen B.V. Attn: G. Wolzak, Mgr. (I, D, M, Exporter), 28 Zandweg or P.O. Box 24, Maarssen.

35370 — NETHERLANDS — Electric driven stackers, reach trucks, fork trucks, platform trucks: electric, gasoline, diesel oil, gas driven order-picking trucks: related commodities. Seeks distributorship arrangement for Benelux Area, Netherlands Antilles, and Surnam, Langerak, V.D. Lingen B.V. (I, D, M, Exporter), 28 Zandwek or P.O. Box 24 Maarssen, Attn: G. Wolzak.

Wishes purchase assorted flat glass in large sheets to be cut at their plants and smaller sizes to use directly in louvers. Correspondence in French. Also exports products to Chad and Central African Republic and has branch in Yaounde. Fermetures Mischler (M. I, D), B. P 807, Douala.

32210 — CAMEROON — Glass bottles, various sizes, for bottling, packaging perfumes, colognes, similar products. Requests samples, catalogs. Societe Anonyme De Fabrication De Parfumerie Au Cameroun (SOPARCA) (M, I, D), B.P. 4065, Douala. Cable: Soparca-Douala.

Abrasive, asbestos, nonmetallic mineral products

32926 — GREECE — Floor tiles, vinyl asbestos; to be used locally for office and residential construction. Specializes in import of building materials, acting both as direct importer and commission agent. Prepared to place order as soon as possible and will decide on basis of price. Also interested in agency agreement. A.N. Panayiotopoulos (I, A, D), 32 Venizelou St., Thessaloniki.

Steel mill products

● 33100 — THAILAND — 350 m.t. indented prestressing wire, hot rolled steel type, 4mm diameter, min. tensile strength 175 Kg./mm 2. Tender No. MEA-NSD-297 from Purchases and Stores Dept., Metropolitan Electricity Auth., 121 Chakpetch Rd., Bangkok. Documents available at above address for $5 per copy. Bid deadline June 5.

33120 — AUSTRALIA — Specialized stainless steel forms, particularly stainless steel tube, sheet & clad plate. Aqua Wright Div. of Wright & Co. Pty. Ltd. (M, I, A), 32 Maddox St., Alexandria. N.S.W. 2015.

33120—NIGERIA — Waste steel sheets, sizes USG29 USG31, quality JIS-G3141/1699 SP CC or equivalent suitable for drawing basin shapes. Purchase requirement 600 tons per quarter. Quotation desired c.i.f., Lagos. Nigerian Enamelware Co., Ltd., C. F. Hsu, Gen. Manager (I, D), Industrial Estate, P.O. Box 3, Ikeja, Lagos.

33120 — SAUDI ARABIA — Steel rods, ASTM 441 diameters one half in. to five in. by half in. increments and six, seven and eight in. Larger sizes in 15 ft. lengths. Quote c.i.f. Damman, Saudi Arabia. M. Mohsen Ali Al-Mohandis, Proprietor (M), PO Box 185, Alkhobar.

33120 — UNITED KINGDOM — Galvanized steel tape (i.e. 0.20 mm. x 25 mm. over zinc coating); 5,000 kgs. 0.127 mm. x 38 mm. ditto; both for use in manufacture of high voltage electric cables. AEI Cables Ltd., K.&R. Camp. Purchasing Officer (M), Gravesend, Kent DA11 OAF.

33123—ISRAEL—Hot rolled coils. Quality: AISI 1010 and AISI 1016. Thickness: 3-9.2 mm; width: 800 to 1800 mm; coil weight; 8 tons minimum—17 tons maximum; quantity required: 10,000 tons. Middle East Tube Co., Ltd. (M), P.O. Box 788, Haifa.

33123 — MEXICO — Hot-rolled steel sheet and coils in gauges 10 to 22 & should be Corten (material list type A-242) or Mayari (A-606) steel. Will be used in construction of industrial steam boilers. Approximately 800 tons of these products needed annually. Delivery immediately and on continuing, regular basis desired. Purchase decision depends primarily on speed of delivery. Responses should be sent within three months. Ce-Rrey, S.A., Attn: Sr. Antonio M. Fuentes Diaz (M), Aparado Postal 1180, Monterrey, Nuevo Leon.

33124 — ISRAEL — Steel bars for manufacture of seamless steel tubes. Material: ST.35 and ST.45, fully kiled, peeled or scarfed in the block; diameter: 120 mm; length: 6 or 9 metres fix lengths, 10% random lengths acceptable. Quantity required: 10,000 tons. Middle East Tube Co. Ltd. (M), P.O.B. 788, Haifa.

33124 — MEXICO — Hot-rolled steel plates in sizes ranging from 3/16 to 1-1/2 inches & hot rolled flat bars and round bars in various sizes. These items should be of Corten (material list type A-242) or Mayari (A-606) steel. Items to be used in construction of steam boilers. Approximately 200 tons needed each yr. Delivery immediately and on continuing, regular basis desired. Responses should be sent within three months. Purchase decision depends on speed of delivery. Ce-Rrey, S.A., Attn: Sr. Antonio M. Fuentes Diaz (M), Apartado Postal 1180 Monterrey, N.L.

33124 — PORTUGAL — Steel plates: a) A-36 quality, according to ASTM A-37-70A specification, including supplementary requirements S2. b) A-283-70A grade C quality, alternatively A-284-70A grade B quality. c) A-637-70 quality. Flat bars, angles, and sections: a) A-36 steel quality, according to ASTM A-36-70A specification, including supplementary requirement S2. b) A-283-70A grade C steel quality, alternatively A-284-70A grade B quality. c) A-588-70A steel quality. Test certificates of quality standards for each category required. Firm is one of the largest metallurgical enterprises in Portugal. Construcoes Metalomecanicas Mague, Sarl. (M), Alverca Do Ribatejo.

33125 — PANAMA — Galvanized wire 0.24 mm. to be used in manufacture of soap pads. First order could be of approximately 15 tons. Payment will be on letter of credit basis. Quotations requested on urgent basis; company has almost exhausted supplies. Financiera Lamerica, S.A., Alberto Cohen, Pres. & Mgr. (M, D), Box 8572,, Panama 5, R.P. Transisthmian Hwy. Entrance to Monte Oscuro.

33125 — TURKEY — Wire rods for making welding rods. Size: diameter 5.50 mm. Chemical analysis: C, 0.05-0.10%; MN, 0.45-0.65%, SI, 0.03% max.; P, 0.025% max.; S, 0.025% max.; CU, 15% max. Annual requirement: 10,000 tons; present requirement: 2000 tons, 500 tons to be delivered as soon as possible, the rest in lots of 500 tons each. Oerlikon Kaynak Elektrodlari Be Sanayi A.S. (M), Percemli Sokak No. 11-15, Karakoy, Istanbul.

33126 — MALTA — Steel tubes for manufacture of tubular furniture. Specifications as follows: outside diameters ⅞ in., ¾ in.; wall thickness 18 British Standard gauge. Catalogs, descriptive materials requested. Bim Ltd. (M, light engineering), Industrial Estate, Marsa.

33127 — MALTA — Electro-galvanized steel-sheets, phosphated, chromated, commercial quality and hot-dipped galvanized steel sheets for manufacture of steel office furniture. Specifications as follows: sizes 6 ft. by 3 ft., 6 ft. by 4 ft., and 8 ft. by 4 ft.; thickness 22, 20, 18, 16 British Standard gauge. Catalogs, descriptive materials requested. Bim Ltd. (M, light engineering), Industrial Estate, Marsa.

33167 — MEXICO — Cold-rolled steel sheet and coils in gauges 10 to 22 should be Corten (material list type A-242) or Mayari (A-606) steel. Item will be used in construction of industrial steam boilers. Approximately 800 tons needed annually. Delivery immediately and on continuing, regular basis. Purchase decision depends primarily on speed of delivery. Responses should be sent within three months. Ce-Rrey, S.A., Attn: Sr. Antonio M. Fuentes Diaz (M), Apartado Postal 1180, Monterrey, Nuevo Leon.

33155 — PANAMA — Steel wire, 3 cm., for use in manufacture of scouring pads. First order could be of approximately 20 tons, and supplies required on continuing basis. Quotations requested on urgent basis because firm has almost exhausted its stock. Financiera Lameric, S.A., Alberto Cohen, Pres. & Mgr. (M, D), Box 8573, Panama 5, Transisthmian Hwy. Entrance to Monte Oscuro.

33167 — MEXICO — Cold-rolled steel and round steel bar in various sizes. These bars should be of Corten (material list type A-242) or Mayari (A-606) steel. Items to be used in construction of industrial steam boilers. Approximately 100 tons needed annually. See 33167—MEXICO—Ce-Rrey, S.A., Attn: Sr. Antonio M. Fuentes Diaz (M), Aparatado Postal 1180, Monterrey, Nuevo Leon.

Rolling, drawing, extruding of nonferrous metals

●**33500 — INDIA** — Directorate General, Supplies and Disposals, New Delhi, invites bids on cable telephone paper core, units twin, 393.93 km. Tender documents available from the India Supply Mission, Washington, D.C. 20008, at a cost of $2.70. Bid deadline July 10. Tender No. ES-9/506/39/006/Bulk/Cell-418.

33512—FRANCE—Copper and brass bars, sheets, strips, tubes of all standards. Proposals should be c.i.f. Le Havre by 20-ton containers. Societe Plancher S.A., Attn: Pierre Plancher (I, D), 20, Rue De Tournon, 75006 Paris. See 33525—FRANCE.

33522—SINGAPORE—Aluminum easy-open lids required urgently. Estimate quantity required: 30,000 to 50,000 pieces per mo. Metal Containers (Pte) Ltd. (M), 4910 Hillview Estate, Hillview Ave., Singapore 23.

33525 — FRANCE — Aluminum bars, sheet, strips, tubes of all standards. Having difficulty with traditional sources of supply in Belgium and Germany; looking for possible U.S. suppliers. Proposals should be c.i.f. Le Havre by 20-ton containers. Societe Plancher S.A. Attn: Pierre Plancher (I, D), 20, Rue De Tournon, 75006 Paris.

33525 — UNITED ARAB EMIRATES — Extruded aluminum channels—all sections. Prospect buys 150,000-200,000 tons per yr. for fabricating prehung doors, windows, and for suspending ceilings. Vendor should feature quality, price and variety of sections. Saqr Bulbul, Proprietor, Al-Saad General Contracting & Trading Co. (M, I, R), P.O.B. 184, Abu Dhabi.

33560 — AUSTRALIA — Titanium & titanium mill products including plate, sheet & pipes & tubing. Aqua Wright Div. of Wright & Co. Pty. Ltd. (M, I, A), 32 Maddox St., Alexandria. NSW 2015.

Cutlery, hand tools, general hardware

34200 — INDONESIA — General hardware. C. V. Baria Trading Co. (I, D), Jalan Kereta API 118, Medan. WTDR in prep.

34230 — BOLIVIA — Hand and edge tools, general hardware. Would also like to obtain representation agreement. Correspondence in Spanish, Portuguese or French. Casa "Cir" De Jacinto Ale Guerrero (R, I, D), Casilla 63, Tarija.

34230 — NIGERIA — Hand tools for carpenters, electricians, plumbers, and electronic and engineering technicians. Quotations desired c.i.f., Lagos; illustrated brochures. N. A. Ibeh, Mng. Dir., Partners For Progress Ltd. (I, D), 114 (Plot 151), Bode Thomas St., Surulere, P.O. Box 8264, Lagos.

34291 — FRANCE — Lock units to be used on caravans. Also interested in agency agreement. Ets. Leon Pinet, S.A. (M, I), 64 Cours De Vincennes, 75012 Paris.

Fabricated structural metal products

34411 — KUWAIT — Firm wishes purchase fabricated aluminum building materials for use in its prefabricated housing program. Aluminum sheets, profiles, window, stucco embossed sheets, hardboard, and plywood are items sought. Shuwaikh Carpentry Workshop (A, I, D, R, M), P.O. Box 2649, Kuwait.

34441 — BOLIVIA—Roofing, corrugated sheet metal. Would also like to obtain representation agreement. Correspondence in Spanish, Portuguese or French. Casa "Cir" De Jacinto Ale Guerrero (R, I, D), Casilla 63, Tarija.

Screw machine products

34521 — BELGIUM — Washers, for motors and spare parts, using vapor. Mestra S.A. (I, A, D), Rue Du Page, 10 Brussels 1050.

Fabricated metal products

34943 — SWITZERLAND — Acuators (known as rotary operators and robot arm actuators) for installation on ball valves for natural gas pipeline system. Specification and quantity: 14 pieces 10 in. 600 lbs: 4 pieces 12 in. 600 lbs; 1 piece 4 in. 600 lbs: 2 pieces 10 in. 300 lbs. API standards 6 dioperating pressure 40 atmospheres. Mr. Bruno Hauser, Weisskopf & Co. AG. (M), Vogelmattstr. 15, 4133 Pratteln.

Engines, turbines

35111 — TAIWAN — Two sets of emergency power generators, 1200kw/3300 volt. To be imported for resale; requests immediate price, quotation and catalogs, as purchase is expected to be completed within a month. Hand Sum Enterprise Co., Ltd. (I, D), 6th Fl., 114 Nanchang Rd., Sec. 1, Taipei (107).

35193 — TAIWAN — Diesel engines for marine use. Kind John Trading Co., Ltd. (I, M), Ishaqua Lane 85, Chiqg-Hua Rd., Seevdm 1, Taipei.

Farm machinery

35220 — BOLIVIA — Farm machinery, tools, equipment. Would also like to obtain representation agreement. Correspondence in Spanish, Portuguese or French. Casa "Cir" De Jacinto Ale Guerrero (R, I, D), Casilla 63, Tarija.

Construction, mining, materials handling machinery, equipment

● **35300 — TURKEY** — Conveyor belt system including crushing and screening station with capacity of 800 tons per hour for thermal power plant. Also to include combined bucket wheel stacker and reclaimer machines. Bid No. 181.6/SOT-1803/427, with deadline of June 15. Contact: Tek/Turkike Elektrik Kurumu Santrallar Dairesi Baskanligi, Necatibey Caddesi, Ihlamur Sokak, Maro Han, 7th Floor, Yenisehir, Ankara. Firms interested may buy specifications from above address for $71.50 per copy.

35310 — TURKEY — Descriptive materials and proforma invoices on Caterpillar D-Seven type bulldozers, or equal, and on similar models. Aktur, Turizm Ve Endustri Anonism Sirketi (hotel corporation), Mugla Valiligi, Mugla.

35340 — BELGIUM — Hydraulic passenger car elevators. Mestra, S.A. (I, A, D), Rue Du Page, 10 Brussels 1050.

35370 — GERMANY — Industrial robots. Has own engineering staff and service facilities. Product desired for resale. C. Illies & Co., Attn: Mr. Cares (I, A, D), 2 Hamburg 36, Gaensemarkt 45.

Metalworking machinery

35410 — JAMAICA — Nut, bolt and screw making machines to produce nuts and bolts quarter in. to one in. diameter and up to six in. length; screws down to BA and ANA sizes (suitable for furniture). Capacity 10,000 units per eight hr. shift. 50 cycle-current. Hydraulics & Steel Engineers, Attn: William Stewart (Engineering services), 2 Seaforth St., Kingston 3.

35410 — PARAGUAY — New, used or rebuilt hand operated machines for manufacture of wood and machine screws, bolts and nuts; small to medium production. Lincoln S.A. (I, D, R), Cerro Cora 262, Asuncion.

35410 — TURKEY — Automatic lapping machine able to handle different sizes and kinds of needles. Requires rapid delviery, wishes price quotations, descriptive material. Purchase decision will be based on quality, service, delivery speed. Dizelsan (Dizel Pompa Enjektor Sanayi Ve Ticaret A.S.) (M), Kemal Pasa Asfalti, Isiklar, Izmir.

35411 — ARGENTINA — Eight in. horizontal boring machine for use in manufacture of cast steel valves used in water supply, sewerage disposal, petroleum and gas industries; estimated value $100-$400,000 dollars. Purchase decision will be made principally on price and reasonable delivery terms; purchase is to increase plant capacity and efficiency in an expanding market; purchase during next 12 months. Moto Mechanica Argentina S.A.I.C. (M), Ruta Nacional No. 8, KM 20.700, Casilla de Correo 46, San Martin, Prov. of Buenos Aires.

35412 — ARGENTINA — Multiple bit drill press, 6-10 positions, for drilling valve heads made of cast iron; high speed machine required; to be installed during next year. Moto Mecanica Argentinas. A.I.C. (M), Ruta Nacional No 8 KM. 20700, Caella de Correo 46, San Martin, Prov. of Buenos Aires.

35414 — TURKEY — One center grinding machine. Distance between centers: 1000 mm, max. diameter to be turned: 400mm. Machine will be used in the production of electrical motors. Company wishes to receive price quotations, catalogs, technical data. Simtel Ticaret Ve Sanayi A.S. (M), Munzevi Kisla Caddesi No. 50, 3670, Demirkapi, Istanbul

35415 — TURKEY — One lathe; distance between centers: 1000 mm. maximum diameter to be turned: 400 mm.; copying accuracy: 0.01 mm. Machinery will be used in production of electrical motors. Company wishes to receive price quotations, catalogs, technical data. Simtel Ticaret Ve Sanayi A.S. (M), Munzevi Kisla Caddesi No. 50, 3670, Demirkapi, Istanbul.

35418 — TURKEY — One facing and centering machine with automatic work cycle for components up to 40mm diameter and maximum length of 600mm. Machinery will be used in production of electrical motors. Important manufacturer of vacuum cleaners, circulation pumps, battery charging generators, other products. Is owned by KOC Holding, one of largest and most influential private industrial enterprises in Turkey. Offers have been solicited from European firms. Wants price quotations, catalogs, technical data. Simtel Ticaret Ve Sanayi A.S. (M), Munzevi Kisla Caddesi No. 50, 3670, Demirkapi, Istanbul.

35420 — BELGIUM — One hydraulic press and hydraulic tooling for extruding copper TS out of copper tube, according to Nibco process. Desco (Schotmans & Dedecker P.B.V.A.) Mr. Smans, Production Mgr. (M), Bloemstraat 25, 2200 Borgerhout.

35421 — TURKEY — One automatic stamping press with friction cloth including: feeder material, w. up to 220mm, max. advancement: 200mm; wind-off reel material, w. 550mm; roller straightener with motor drive; one hydraulically actuated shear 2500 x 4mm. Machinery will be used in the production of electrical motors. Simtel Ticaret Ve Sanayi A.S. (M), Munzevi Kisla Caddesi No. 50, 3670, Demirkapi, Istanbul.

35422 — KUWAIT — Firm wishes to obtain quotes, Net f.o.b. and c.i.f. Kuwait, for 300 ton press brake, six-meter working width plus detailed offer with all options. Al-Omar Mechanical Engineering Co. (I, A, D, R), P.O.B. 392, Cable: Omarco; Telex: 152 Omarco KWT, Attn. Mike Haddad.

35452 — TAIWAN — One complete set of electronic instruments for measuring circularity and precision of motorcycle brakes. Include literature, quotation c.i.f. Kaohsiung, Taiwan. Sin Yung Machinery Co., Ltd. (I, M), 263-26 Tai Dua St., Chia-Yi City, Taiwan (600).

35482 — NIGERIA — Power driven hand tools, 220/230 volt, 50 HZ, with British type electric plug. Quotations desired c.i.f. Lagos as well as illustrated brochures. To get started with new lines management plans to make use of product samples which firm hopes suppliers will help finance as well as absorb partial costs of showroom. N. A. Ibeh, Mng. Dir., Partners for Progress Ltd. (I, D), 114 (Plot 151), Bode Thomas St., Surulere, P.O. Box 8264, Lagos.

35485 — JAPAN — A metalworking machine forms continuously 400-600mm width, 120 mesh wire cloth made of phosphor bronze into an accordion pleat shape with a pleat length of 5mm. Catalogs, descriptive materials requested. Sanei Kikai K.K. (A), Fukuzaki Bldg., 3-6 Iwamoto-Cho 1-Chome, Chiyoda-Ku, Tokyo 101. Firm wants one unit on a trial basis.

Special industry machinery

● **35500 — ALGERIA** — Two ceramic sanitaryware factories, annual capacity 10,000 m.t. each, at Tense (Wilaya of El-Asnam) and at Oran. Correspondence in French. Tender number not specified; bid deadline June 30. SNMC, Direction Engineering Et Development, Gue-De-Constantine, Kouba, Algiers, Telex 52812.

● **35500 — ALGERIA** — The government has issued an international tender inviting bids for equipment, start-up, and personal training for three textile plants producing worsted and synthetic yarns. Tender reference Complexes Lavage-Peignage Et Filatures. Bid deadline Aug. 20. All correspondence must be in French and should be addressed to Societe Nationale Des Industries Textiles (Sonitex) 4 Et 6, Rue Patrice Lumumba, Algiers, Texex 52873. One copy (in French) of specifications is available for loan from Transportation and Capital Equipment Division, BCABP-464, U.S. Department of Commerce, Washington, D.C. 20230, (202-967-5589).

35520 — BOLIVIA — Machinery to make flour sacks, cloth. Graphic-Art De E. Zuna P. (specialty printing shop, I), Casilla 480, Oruro. Cable Add: Grat, Oruro.

35520 — TURKEY — Construction of 8 to 10,000 spindle plant to produce Kamgarn wool and synthetic wool fiber. Interested in purchasing complete line of carding, combing and preparation machines for processing long staple synthetic wool fiber. Bossa Textile Corp., Sevket Sabanci, Vice Chmn., Hasan Gulesci, Project Mgr. (I, D, M) Karsiyaka, Ceyhan Yolu, Adana.

35520 — TURKEY — Company requests price quotations from interested U.S. companies for complete line of machinery for linting, extracting, refining and packaging cottonseed oil. Plant to have daily capacity of 150 m.t. Project valued at TL49 million. Muamme Komurcu, Seyit Komurco Ve O Gullari Kollektif Sirketi (M), P. K. 115 Yeni Hal 30-31, Gaziantep.

35520 — TURKEY — Interested in purchasing carpet tufting machinery and in concluding licensing agreement for manufacture of carpets. Desires prices, descriptive materials, suggested plant layout general idea of licensing terms. Iac Sanayi Ve Ticaret Anonim Sirketi (M), Mimar Kemalettin Caddesi No. 43, Izmir A-6.

35531 — NIGERIA — Firm with newly-acquired 80,000-acre virgin timber concession in Liberia seeks to purchase sawmill and complete trucking and handling equipment requirements from sawmill/logger operator and surplus capacity. Needs include: band sawmill with 10,000 to 40,000 bd. ft. capacity per day of sawn lumber, edger, cross cut saw complete set rollers, full workshop, set of various blades and discs, 10 ton capacity overhead crane, and generating plant for company community and sawmill. Also desires 4 used timberjack log skidders with attachments, 4 trucks with pole trailers of 20 to 25 tons carrying capacity, 4 D-7 Caterpillar bulldozers or equivalent, and 1 helicopter to take 20 to 25 ton loads. President of company prepared to travel to U.S. on short notice to talk with prospective suppliers of surplus sawmill and log handling equipment. He would hope to conclude arrangements before end of June. Fozi Mortada, Pres. and Mng. Dir., Brasilian Afro Logging Corp. (I, D), Clara Town, P.O. Box 310, Monrovia.

35552 — BOLIVIA — Equipment for seriography. Catalogs desired. Graphic-Art De E. Zuna P. (specialty printing shop, I), Casilla 480, Oruro. Cable: Grat, Oruro.

35552 — FRANCE — Printing equipment: offset & rotative blankets. Correspondence in French. Etablissements Mioni & Andrieu (M), 91 Rue Amilcar Cipriani, 93—Saint-Ouen.

35590 — TURKEY — Firm in process of establishing plant for producing carbonic acid and carbon dioxide, wishes descriptive materials, price quotations for necessary chemical machinery equipment. Plant to have hourly processing capacity of 100 kgs. Gunes Ticaret Ve Komisyon (M), Cankaya Salli Pasaji No. Z/9, Izmir.

35591 — BOLIVIA — Machinery for making pharmecueticals, both human and veterinary, cosmetics. Desires to begin producing own products to supplement line of imports. Correspondence in Spanish. Socoman S.A. (I, A, D), Casilla 2196, La Paz. Cable: SOCOMAN, La Paz.

35591 — INDIA — Multistage pusher type continuous centrifuges, rotary compressors for CO_2 (centrifugal. screw and vane types). soda ash calciners, axial flow pumps. stainless steel coils and densification units for soda ash. Required for 200 tons soda ash and ammonium chloride plants. Humphreys & Glasgow Consultants Private Ltd. (consulting and "turn-key" engineers), "Gammon House," Savarkar Marg, Prabhadevi, Bombay 400025.

35595 — BOLIVIA — Complete, medium-size plant, equipment to make elements

for motor vehicle oil filters. Correspondence in Spanish, Portuguese or French. Casa "Cir" de Jacinto Ale Guerrero (R, I, D), Casilla 63, Tarija.

35595 — INDIA — All necessary machinery and equipment for automatic manufacture of glass bottles for brewery. Desires price quotation c.i.f. Calcutta, catalogs of equipment offered by May 30. Bhaskar Textile Mills Ltd. (M), 2 Biplabi Trailokya Maharaj Sarani, Calcutta-700001.

35595 — PORTUGAL — Cream and ointment mixers (50 gallons capacity); dry granule mixers (150 kilogram capacity); ampule filling and washing machines; distillers; labeling machines; tablet making machines, with hourly production capacity of 30,000 tablets; capsule making machines, with 100 to 150 kilogram production capacity, other pharmaceutical machinery. Seeks U.S. machinery for expansion of manufacturing facilities. Essex Farmaceutica Portuguesa, Lda. (M), Avenida Infante Santo 76-70 Lisbon.

35595 — THAILAND — Machinery to produce hard gelatin capsules for pharmaceutical purpose, fully automatic. Technical assistance required. Request price lists, catalogs, brochures, literature. Interested in buying 1 or 2 units. Arland Ltd., Part., Attn: Anake Serimontrikul (A, D, I), 516 Patumwan Circle, P.O. Box 1555, Bangkok.

35595 — TURKEY — Complete machinery for manufacturing annually 500-600,000 pairs of men's, women's or children's shoes. Wishes to receive price quotations, technical specifications. Fastas Fabrikasyon Ayakkabi Sanayii Ve Ticaret A.S. (M), Carsikapi, Turbe Sokak 21 Eminonu, Istanbul.

General industrial machinery

35641 — ISRAEL — Large fans for frost protection. N. Feldman & Son Ltd. (I, A, M), 137A Jaffa Rd., P.O. Box 9720 Haifa. WTDR 3/73. Interested in working on an exclusive agency basis at a later stage.

35662 — ISRAEL — Hydrostatic transmission. N. Feldman & Son Ltd. (I, A, M), 137A Jaffa Rd., P.O. Box 9720, Haifa. WTDR 3/73. Interested in working on an exclusive agency basis at a later stage.

35690 — AUSTRALIA — Machine which folds and places band on pairs of shoelaces. Process now being done by hand. Needs two or three machines depending on production rate of machine. Largest Australian manufacturer of shoelaces, must have banding machines to stay competitive with imported packaged laces. Desires brochures, description, production rate, etc. for machines. Jack Byrne Pty. Ltd., Attn: Ron Mongar (M, D), 280 Eastern Valley Way, East Roseville, NSW 2069.

35690 — BELGIUM — Sandblasters. H & R Willems (A, M), 24 Rue de Presseux, Libramont.

35690 — BRAZIL — Automatic machines to make zippers for men's and women's clothing. 110/220 V, 50/60 cycle A.C. Correspondence in Portuguese. Catalogs requested. Industria De Fechos Ita Ltda. (M), Rua Toledo Barbosa 453:463 03061 Sao Paulo.

Office, computing, accounting machines

●35700—HONDURAS—Supply and install 12 fixed-platform scales for 20-ton axis capacity; supply two portable platform scales for 20-ton axis capacity; build 12 control houses for system. Tender No. FCIE-30, bid deadline June 11. Correspondence in Spanish. Ministerio de Comunicaciones, Obras Publicas Y Transporte, Direccion General de Transporte, Barrio la Bolsa, Comayaguela, D.C. Plans, specifications and contractual documents are available for 50 Lempiras ($25) at above address.

35720 — BOLIVIA — Typewriters. Catalogs, quotations desired. Correspondence in Spanish. Casa Cracovia Ltda. (R, I), Casilla 163, Santa Cruz.

35741—BOLIVIA—Adding and calculating machines. Catalogs, quotations desired. Correspondence in Spanish. Casa Cracovia Ltda. (R, I), Casilla 163, Santa Cruz.

Service industry machines

35890—TAIWAN — Refrigeration equipment, machinery for marine use. Kind John Trading Co., Ltd. (I, M), Ishaqua Lane 85, Chiqg-Hua Rd., Seevdm 1, Taipei.

35891 — BELGIUM — Direct purchase and/or representation of industrial kitchen equipment, hotel kitchen equipment, self-service counters, hospital food carts. J. Lefroid (A), Neren Aard 4, 2550 Kontich.

35891 — FRANCE — Cooking equipment, commercial. Labesse S.A. (I, M), 25 Rue Du Moulin Joly, 75011 Paris.

35891 — SOUTH AFRICA — Commercial cooking equipment, electric 220/380 voltage, A.C. 50 frequency, with grounding conductor in electrical cord attached to appliances: coffee makers in 5 unit sets; potato chip fryers 18, 5.5 kw.; waffle irons. Requests potential suppliers airmail urgently literature, prices f.o.b. vessel (named port of shipment). Mill Agents S.A. (Pty.) Ltd. (A), P.O. Box 3161, Cape Town, Cape Province.

Electric transmission, distribution equipment

●36100—PANAMA—Supply and installation of electrical and mechanical equipment for the Panama City and Bayano Substations, the Machine Shop and the Dam; for the installation of two 96 MVA transformers at the Bayano Substation and two 175 MVA auto-transformers at the Panama City Substation; and for the supply and installation of electric power for the town of Bayano. Tender No. 263; bid deadline June 19. Director General Instituto de Recurses Hidraulicos y Electrificacion (IRHE), Edificio Peli, Avenida Justo Arosenesa y Calle 27, Apartado Postal 5285, Panama 5, Republica de Panama. Specifications available for review at the Embassy of Panama, Washington, D.C., and at Stone & Webster, Overseas Consultants, 90 Broad St., New York, N.Y. They may be purchased from IRHE for $50.

36120 — SPAIN — Direct purchase for protection elements of transformers to be added to transformers of local manufacture for installation in major rural electrification program (from power lines to private homes and installations). Quantity and volume dependent on response. Buyer has contract for delivery within five months, wants answers within two months. Spanish Correspondence preferred for rapid response but English acceptable. Alkargo, S.C.I. (M), Miravillas S/N, Catica, Vizcaya.

36123 — BELGIUM — Tire stabilizers, electronic. Mestra S.A. (I, A, D), Rue Dur Page 10, Brussels 1050.

Electrical industrial apparatus

●36200 — ARGENTINA — Design, manufacture, supply, and commissioning of 12 Kaplan turbines and corresponding 135 mw. generators and auxiliary equipment for the Salto Grande Hydroelectric Project. Tender No. SG 02; bid deadline August 1. Comision Tecnica Mixta de Salto Grande, Cerrito 264, Piso 4, Buenos Aires. Conditions and specifications available from the above address for $50.

36210 — NIGERIA — Portable generator plants, diesel/gasoline operated, 3 to 10 h.p. Quotations desided c.i.f. Lagos; illustrated brochures. N. A. Ibeh, Mng. Dir., Partners for Progress Ltd. (I, D), 114 (Plot 151), Bode Thomas St., Surulere, P.O. Box 8264, Lagos.

36211 — GERMANY — Electrical industrial motors: universal motor, 220 V, power input approx. 130-150 watt and 500-700 watt. Armaturenfabrik Ernst Horn, Attn: Mr. Beek (M, I), 239 Flensburg, Munketoft 42.

36213 — GERMANY — Motors, electrical, direct current, power input 24 and 36 volt. Firm manufactures small garden tractors, snow-plows, and floor cleaning units. Affiliated firms located in France, Italy, Netherlands. Hako-Motorgeraete, Attn: Mr. Alf (M, I), 2060 Bad Oldesloe, Luebecker Str. 34-36.

36220 — GERMANY — General industry power circuit devices and controls for use in electric trolley cars and garden tractors. Manufactures small garden tractors, snow-plows, floor cleaning units. Affiliated firms located in France, Italy, Netherlands. Hako-Motorgeraete, Attn: Mr. Alf (M, I); 2060 Bad Oldesloe, Luebecker Str. 34-36.

36292 — GERMANY — Battery chargers. Hako-Motorgeraete, Attn: Mr. Alf (M, I), 2060 Bad Oldesloe, Luebecker Str. 34-36.

36293 — TURKEY — One electrostatic finishing (paint) machine with electro-air guns; one coil winding machine: wire size range: 0.04-1 mm. maximum distance between centers: 370 mm. one armature winding machine: maximum wire diameter, 1.2 mm; armature diameter, maximum 60.1 mm; core length, maximum 68 mm. Machinery will be used in production of electric motors. Simtel is important manufacturer of vacuum cleaners, circulation pumps, battery charging generators, other products. Is owned by KOC Holding, one of the largest and most influential private industrial enterprises in Turkey. Offers have been solicited from European firms. Wishes to receive price quotations, catalogs, technical data. Simtel Ticaret Ve Sanayi A.S. (M), Munzevi Kisla Caddesi No. 50, 3670, Demirkapi, Istanbul.

Household appliances

36300 — BOLIVIA — Electric household appliances. Firm would also like representation agreement. Correspondence in Spanish, Portuguese or French. Casa "Cir" de Jacinto Ale Guerrero (R, I, D), Casilla 63, Tarija.

36312 — BOLIVIA — Gas stoves for household use. Catalogs, quotations desired. Correspondence in Spanish. Casa Cracovia Ltda. (R, I), Casilla 163, Santa Cruz.

36321 — BOLIVIA — Household refrigerators. Catalogs, quotations desired. Correspondence in Spanish. Casa Cracovia Ltda. (R, I), Casilla 163, Santa Cruz.

36331 — BOLIVIA — Household washing machines. Catalogs, quotations desired. Correspondence in Spanish. Casa Cracovia Ltda. (R, I), Casilla 163, Santa Cruz.

36341 — BOLIVIA — Electric fans, ventilators for household use. Catalogs, quotations desired. Correspondence in Spanish. Casa Cracovia Ltda. (R, I), Casilla 163, Santa Cruz.

36343 — NETHERLANDS — Small electrical appliances, 220 volts, 50 cycle. Plans to attend National Housewares Show in Chicago July 9, if interesting contacts can be developed. Haagtechno-Kalorik B. V.; Attn: Mr. Nagel (I, M, D), Rietveldenweg 60, P.O. Box 236, S'Hertogenbosch.

36360 — BOLIVIA — Household sewing machines. Catalogs, quotations desired. Correspondence in Spanish. Casa Cracovia Ltda. (R, I), Casilla 163, Santa Cruz.

36391 — SINGAPORE — Water heaters for shipboard use. 82 U.S. gallons, 480 volts alternate current, 3 phase 60 cycles. Robin Shipyard (Pte) Ltd. (I, M), 19A-25A Cecil St., Singapore 1; Cable: Robinship.

Electric lighting, wiring equipment

36440 — NIGERIA — Galvanized electrical conduit pipe, size ⅜", ¾" and 1"; elbows, T-joints, angle joints and boxes. Quotations desired c.i.f. Lagos. Raymond Commercial (Nigeria) Agency (I, D), Block 5, Flat 2 Alhaji Masha St., Surulere, P.O. Box 7831, Lagos.

Radio, television receiving sets

36511 — BOLIVIA — Household, portable radios. Would also like to obtain representation agreement. Correspondence in Spanish, Portuguese or French. Casa "Cir" de Jacinto Ale Guerrero (R, I, D), Casilla 63, Tarija.

36511 — BOLIVIA — Household and portable radios. Catalogs, quotations desired. Correspondence in Spanish. Casa Cracovia Ltda. (R, I), Casilla 163, Santa Cruz.

36514 — BOLIVIA — Record players, tape recorders. Catalogs, quotations requested. Correspondence in Spanish. Casa Cracovia Ltda. (R, I), Casilla 163, Santa Cruz.

36514 — BOLIVIA — Record players, phonographs. Would also like representation agreement. Correspondence in Spanish, Portuguese or French. Casa "Cir" de Jacinto Ale Guerrero (R, I, D), Casilla 63, Tarija.

Communication equipment

● **36600 — AUSTRALIA** — Supply, delivery, installation and commissioning of microwave radio equipment and the supply and delivery of towers to the Papua, New Guinea, Department of Posts and Telegraphs. Basic requirements is for medium-capacity, low-power consumption microwave radio equipment, with a provisional requirement for further equipment. Up to eight towers will be required. Tender No. A 2413; bid deadline July 26. Invited by the Supply and Tenders Board, P.O. Box 4141, Badili, Papua, New Guinea. Free tender documents are available from Superintendent of Supply, Dept. of Posts and Telegraphs, P.O. Box 6352, Boroko, Papua, New Guinea. When tenders are received from Australia, they will be available on five-day loan basis from the Science and Electronics Division, BCABP-466, Room 1112, U.S. Department of Commerce, Washington, D.C. 20230 ★(202-967-4822).

● **36610 — ALGERIA** — Supply of aerial and underground telephone line joining material, for state railways; 500 type R2 junction boxes, type RPF; 2,200 type RPF; 6,200 type RPF8; and 100 type RPF14; and fuses, lightning protectors, and numerous accessories. Tender No. 50-14/B.6-VB 302B, bid deadline June 27. Correspondence in French. Offers may be partial or complete. Tender documents available from Monsieur L'Ingenieur Chef du Service de la Voie et des Batiments (S.E.S.), SNCFA, 21-23, Blvd. Mohamed V, Algiers, Telex 52851, cable address CEFAFER VOIE ALGER. When tenders are received they will also be available on a five-day loan basis from the Science and Electronics Div., BCABP-466, Room 1112, U.S. Department of Commerce, Washington, D.C. 20230 ★(202-967-4822).

● **36610 — ALGERIA** — Supply of miscellaneous signaling equipment for state railways. Tender No. 50-16/B.Y. VB. 302 B, bid deadline June 27. Correspondence in French. Offers may be partial or complete. Tender documents available from Monsieur L'Ingenieur Chef du Service de la Voie et des Baliments (S.E.S.), SNCFA, 21-23 Blvd. Mohamed V. Algiers, Algeria, Telex 52851, cable address Cefafer Voie Alger. When tenders are received they will also be available on a five-day loan basis from the Science and Electronics Division, BCABP-466, Room 1112, U.S. Department of Commerce, Washington, D.C. ★(202-967-4822).

● **36620 — HONG KONG** — Civil Aviation Dept. seeks speech processing equipment to be installed in air traffic control center, aerodrome control tower, aeromobile center, rescue coordination center, apron marshaling tower, apron supervisor's accommodation. Bid deadline June 30. Tender documents available from Civil Aviation Dept., New Rodney Block, 99 Queensway, Hong Kong. When tenders are received they will also be available on a five-day loan basis from the Science and Electronics Division, BCABP-466 Room 1112, U.S. Department of Commerce, Washington, D.C. ★(202-967-4822).

36624 — TAIWAN — Electronic navigational aids for marine use. Kind John Trading Co., Ltd. (I, M), Ishaqua Lane 85, Chiqg-Hua Rd., Seevdm 1, Taipei.

36625 — TAIWAN — Electronic search, detection apparatus for fishing. Kind John Trading Co., Ltd. (I, M), Ishaqua Lane 85, Chiqg-Hua Rd., Seevdm 1, Taipei.

Electrical machinery, equipment supplies

36912 — GERMANY — 24 and 36 volt batteries. Hako-Motorgeraete, Attn: Mr. Alf (M, I), 2060 Bad Oldesloe, Luebecker Str. 34-36.

Motor vehicles, equipment

37141 — AUSTRALIA — Automobile parts & accessories. Also interested in agency agreement. Traveling to U.S. latter part of May and will be available to interested U.S. companies. Bennett & Wood Ltd., Attn: Mr. D. S. Hayward, marketing mgr. (I, A, D), 114 Joynton Ave., Zetland, NSW 2017.

37141 — BOLIVIA — Motor vehicle spare parts. WTDR 4/73. Repac Ltda. (R, I, D), Casilla 572, Santa Cruz.

37141 — BOLIVIA — Motor vehicle spare parts. Would also like to obtain representation agreement. Correspondence in Spanish, Portuguese or French. Casa "Cir" de Jacinto Ale Guerrero (R, I, D), Casilla 63, Tarija.

37141 — ISRAEL — Hydrostatic steering. N. Feldman & Son Ltd. (I, A, M), 137A Jaffa Rd. P.O.B. 9720 Haifa. WTDR 3/73. Interested in working on an exclusive agency basis at a later stage.

37170 — UNITED ARAB EMIRATES — Hydraulic hoists of 10, 15, 20, 25, 30 and 35 ton capacities for fitting to truck and semi-trailer bodies manufactured by prospect. Prefers complete units including hydraulics, cylinder assembly, lift arm assembly, pump assembly and control valve assembly; will accept quotations on components. Require at least 10 units each capacity above and as many as 40 of some capacities immediately. Quote c.i.f. Abu Dhabi. Saqr Bulbul, Prop., Al-Saad General Contracting & Trading Co. (M, I), P.O.B. 184, Abu Dhabi.

Ship building, repairing

37311 — SPAIN — Landing barge, Type LSM, 930/1094 m.t., equipped with two diesel engines and with following measurements (in meters): length 58.80; breadth 11.64; depth 2.50; landing barge Type K481/868 m.t. with following measurements (in meters); length 56.10; breadth 10.35; depth 2.50. Should these specific barges not be available firm interested in similar ones, with loading capacities of between 400 and 600 m.t. Interested in receiving catalogs, photos, quotations, delivery terms, etc. D.A.N.T.O., Attn: Daniel Hernandez Suarz (I, D), Montevideo 29, Las Palmas De Gran Canaria.

37313 — ARGENTINA — Deep sea fishing vessel with following characteristics: total length 25/30 meters, beam 6/7 meters, draft 3.50/4.00 meters, 120 c.m. of fish capacity, Caterpillar motor D-379 or D-353 or equal, hydraulically equipped with hydraulic rudder, emergency equipment, alternating current and 24 volts emergency electronic equipment including radar radio, radiogoniometer, echo sounder, sonar; autonomy at sea 8-10 days; also included with above: 3 drift nets, 1 trail net, 100 king crab nets of 50 meters each, one scoop net with corresponding closing gates, steel cables necessary for ship's winch, drift nets for crawfish catching, boxes for storing fish. Immediate delivery. Industria Pesquera San Julian S. Rbml. (commercial fishing), Pueyrredon 1, Puerto San Julian, Provincia Santa Cruz.

37320 — MONACO — Pleasure boat hardware. Direct purchase & agency. Moravia Yachting et Marine (I, A, D), Ave. De Grande Bretagne, Monte-Carlo, Monaco

Railroad equipment

● **37400 — ALGERIA** — Supply of 500,000 reinforced "Grower" flanges (French Standard NF. F. 50.001) and 100,000 soft steel frange plates, 50x24x4, for State Railways. Bid deadline June 25. Quote c.i.f. Oran and Skikda. French correspon-

dence required. Further information available from SNCFA, Monsieur le Chef de la Voie (approvisionnements), 21-23BD. Mohamed V, Algiers, Calges: Cefafer-Voie.

Motorcycles, bicycles, parts

37510 — BOLIVIA — Bicycles. Catalogs, quotations desired. Correspondence in Spanish. Casa Cracovia Ltda. (R, I), Casilla 163, Santa Cruz.

Transportation equipment

37910 — FRANCE — Trailers, mobile-homes. Ets. Cage (I, R), 2, Rue Des Rosati, 62002 Arras.

Instruments for measurement, analysis and control

● 38200 — BANGLADESH — Catalog and quotations for testing instruments and equipment for building materials; textile raw materials; textile products; electrical measurement; magnetic, sound, heat and light measurement; chemical analysis; soil testing; micro-biological analysis; metallurgical testing; etc. Central Testing Laboratories (CTL) plans to establish several testing laboratories, and requests U.S. catalogs and prices. Procurement may be on sealed or open tender to be issued later, depending on responses to this request. CTL indicates there is also strong possibility of procurement by direct negotiation. Send catalogs and quotations to Central Testing Laboratories, Ministry of Industries, Bangladesh Government, Tejgaon, Dacca. (Cable: "TESTLAB," Dacca.)

Optical instruments, lenses

38311 — ITALY — Photographic projection lenses, fresnel lenses. Malinverno, P. Di Eredi (I), Via Alfieri 10, 27046 Malnate.

Surgical, medical, dental instruments

● 38400 — GREECE — Supply of 40 dental units equipped with airotor dental engine, water syringe, air syringe, dental lights, and saliva ejector. Motors should be for 220 v A/C current. Estimated unit cost $1500-$2000. Forty dental chairs equipped with foot pump. Approximate unit cost $300-$500. Tender No. and bid deadline not yet available. Suggest interested firms send brochures and prices to Emmanuel P. Apostolides, 16 Ermou St., Thessaloniki, a leading local supplier of medical and dental equipment who is acting on behalf of the Univ. of Thessaloniki. When tender documents are received they will be available on a short term loan basis from the Science and Electronics Division, BCABP-466, Room 1128, U.S. Department of Commerce, Washington, D.C. 20230, ★(202-967-2939).

38410 — BELGIUM — Operating tables; hypodermic syringes, needles, all disposal; and medical and surgical instruments. Bial Scientific Sprl (A, D, I), Rue de la Station, 15 Ruisbroek 1610.

38421—BELGIUM—Catheters. Bial Scientific Sprl (A, D, I), Rue de la Station 15, Ruisbroek 1610.

38430 — FRANCE — Dental equipment and supplies: dental chairs and equipment units. Perrigot Pierre et Cie S.A. (I, A, R), 40, Rue Camille Roy, 69007 Lyon.

Photographic equipment, supplies

38616—INDONESIA—Photographic paper. C. V. Baria Trading Co. (I, D), Jalan Kereta API 118, Medan. WTDR in prep.

Toys, amusement, sporting goods

39430 — BOLIVIA — Tricycles. Catalogs, quotations desired. Correspondence in Spanish. Casa Cracovia Ltda. (R, I), Casilla 163, Santa Cruz.

Pens, pencils, office, artists' materials

39510—TAIWAN—Ball point tips. International Industrial Corp. (I, M), P.O. Box 22205 Taipei.

39550 — AUSTRALIA — Typewriter ribbons. See listing 26451—Australia. Supreme Office Supplies Pty. Ltd., Attn: Rudy Wildshut (I, D), 8 A Swan St., Hamilton, Newcastle, NSW 2303.

39550—FRANCE—Ribbon for typewriter and calculating machines (silk) and computers—electronic data processing—(silk, nylon). Disco S.A. (M, R, D, L), 68 Ave. Faidherbe 93 Montreuil.

Farm products—raw materials

50510—TURKEY—Firm wishes purchase immediately 5000 tons HMS No. 1 (one) and 5000 tons HMS No. 2 (two) scrap iron. Price quotations, earliest shipping dates requested. Izmir Metalurji Fabrikasi T.A.S. (M), Altindag, Izmir.

Manufacturing industries

39933 — CANADA — Advertising novelties and gift items. Keystone McDalen Manufacturing (Plastic) Ltd. Contact: John Lojber (D, M), 9 Davies Ave., Toronto 8, Ontario.

39999 — FRANCE — Beauty shop accessories. Direct purchase & agency. Societe Henry Marcy (I, A), 35 Rue Godot-De-Mauroy, 75009 Paris.

Representations

Foreign private firms are interested in agency agreements and/or distributorships for these products.

Heavy construction, except highway & street construction

16290 — TUNISIA — 12 silos for cereals storage in metal structure, glass and polyester to be built in three months. Storage capacity 8,814 quintals each. Project estimated at about $1.3 million. Has contacts with private farmers promoting project with Government's financial guarantee. V&R SUIED (I, A), 34, Rue Sidi El Adjami, Tunis.

Canning, preserving foods

20331 — NETHERLANDS — Canned fruit. G. Buttner Co., Attn: A. Van Graafeiland, Owner (I, A, Exporter, Commission Merchant), 43C Henegouwerlaan, or P.O. Box 158, Rotterdam. Seeks agency/brokerage for Netherlands.

20341—NETHERLANDS — Dried fruits. G. Buttner Co., Attn: A. Van Graafeiland, Owner (I, A, Exporter, Commission Merchant), 43C Henegouwerlaan, or P.O. Box 158, Rotterdam. Seeks agency/brokerage for Netherlands.

Broad woven fabric mills, cotton

22111 — GERMANY — Broad-woven fabrics, cotton colored, white or printed, for men's shirts, women's underwear, for re-sale to textile industries. Bruns & Hiersemenzel O. H.G., Attn: Mr. Hiersemenzel (I, A), 2 Hamburg 55, Krumdal 2.

22114 — ICELAND — Denim cotton fabrics. Wishes to act as exclusive distributor. Sells throughout Iceland. Heildverzlun Matthiasar Einarssonar (I, A, R), Laufasvegur 17-19, Reykjavik.

22116 — ICELAND — Corduroy cotton fabrics. Wants to act as exclusive distributor. Heildverzlun Matthiasar Einarssonar (I, A, R), Laufasvegur 17-19, Reykjavik.

22117—BELGIUM — Cotton broadwoven fabrics, finished in broadwoven fabric mills. J. P. de Ryckere—Textile Agencies (A), Place des Barricades, 5, 1000 Brussels.

Broad woven fabric mills, manmade fiber, silk

22211 — GERMANY — Broad-woven fabrics, synthetics, colored, white or printed, for men's shirts, women's underwear, for re-sale to textile industries. Bruns & Hiersemenzel O.H.G., Attn: Mr. Hiersemenzel (I, A), 2 Hamburg 55, Krumdel 2.

22214—BELGIUM—Cotton and polyester blends, 100-0/0 spun fabrics, including corduroy, gabardine and oxfords. J. P. de Ryckere—Textile Agencies (A), Place des Barricades, 5, 1000—Brussels.

22218—BELGIUM—Silk fabrics, finished, made in broadwoven fabrics mills. J. P. de Ryckere—Textile Agencies (A), Place des Barricades, 5, 1000 Brussels.

Miscellaneous apparel, accessories

23890—JAPAN—Ladies accessories of all kinds. Distributorship. Teramoto Shoji, Ltd. (I, A), 10-7 Kyomachi 3-Chome, Kokura-Ku Kitakyushu-City.

Fabricated textile products

23910—JAPAN—Curtains and draperies. Seeks agency arrangement. Japan Merchandise Supply Co., Ltd. (I, D, Exporter), 8 Satsuma-Cho 2-Chome, Mizuho-Ku, Nagoya 467.

Millwork, veneer, plywood, prefabricated structural wood items

24332 — AUSTRALIA — Company seeks agency for wooden prefabricated & modular dwellings & wooden panels for prefabricated & modular dwellings, Newman, Mckay & Co., Attn: Mr. D. A. C. Hall (Finance brokers, property developers), Suite 11, 26 O'Connell St., Sydney. NSW 2000. WTDR in prep.

Household furniture

25110—JAPAN—Wood household furniture. Seeks agency arrangement. Japan Merchandise Supply Co., Ltd. (I, D, Exporter), 8 Satsuma-Cho 2-Chome, Mizuho-Ku, Nagoya 467.

25112 — AUSTRALIA — Company seeks agency for wood living room, library, sunroom & hall furniture. Wishes to diversity into import field. Newman, Mckay & Co., Attn: D. A. C. Hall (Finance Brokers, Property Developers, Exporters), Suite 11, 26 O'Connell St., Sydney. NSW 2000. WTDR in prep.

25117—AUSTRALIA—Seeks agency for wood outdoor furniture & unpainted wood furniture. Wishes to diversify into import field. Newman Mckay & Co.,

Attn: D. A. C. Hall (Finance Brokers, Property Developers, Exporters), Suite 11, 26 O'Connell St., Sydney. NSW 2000. WTDR in prep.

25143—AUSTRALIA—Seeks agency for metal porch, outdoor & lawn furniture. Wishes to diversify into import field. Newman, Mckay & Co., Attn: D. A. C. Hall (Finance Brokers, Property Developers, Exporters), Suite 11, 26 O'Connell St., Sydney. NSW 2000. WTDR in prep.

Furniture, fixtures

25990 — JAPAN — Geriatric equipment for use at home or in hospitals, canes; wheel chairs, beds, bathtubs, etc. Nippon Seiko K.K., Foreign Operations Div. (I, A, M), 3-2 Marunouchi 2-Chome, Chiyoda-Ku, Tokyo 100.

Converted paper, paperboard products

26414 — PARAGUAY — Pressure sensitive masking tapes. Exclusive agency. Guillermo Wolscham (I, A, R), Yegros 2079, Asuncion.

Paperboard containers, boxes

26540 — SAUDI ARABIA — 10,000 Playtex type or equal, nursing disposable feeding bottles. Quote c.i.f. Dammam with catalogs; wishes sole agency for Saudi Arabia. Correspondence addressed to Mr. Mahammed Jado. Jado Establishment (R, Construction and Civil Engineering), P.O. Box 1906, Riyadh, Eastern Province.

General commercial printing

27519 — ISRAEL — Dry-transfer decalcomanias for use by electronics and architectural draftsmen: circuit symbols, letters, figures, etc. Mrs. Nava Ravid, 31 Hasharon St., Herzlia.

27526 — ISRAEL — Dry-transfer decalcomanias for use by electronics and architectural draftsmen: circuit symbols, letters, figures, etc. Mrs. Nava Ravid, 31 Hasharon St., Herzlia.

Industrial chemicals

28120—PARAGUAY—Industrial chemicals for textile mills. Seeks exclusive agency. Comercial Luis A. Antebi (I, A), Teniente Farina 1068, Asuncion.

28151 — NETHERLANDS — Cyclic (coal tar) intermediates. B. V. Frado, Attn: C. J. Van Der Veen (I, D, M), 6 Twenthestraat, Tilburg.

28152 — NETHERLANDS — Synthetic organic dyes, cyclic dyes. B. V. Frado, Attn: C. J. Van Der Veen (I, D, M), 6 Twenthestraat, Tilburg.

28152 — PARAGUAY — Dyestuffs for textile mills. Seeks exclusive agency. Comercial Luis A. Antebi (I, A), Tiente Farina 1068, Asuncion.

28153 — NETHERLANDS — Synthetic organic pigments. B. V. Frado, Attn: C. J. Van Der Veen (I, D, M), 6 Twenthestraat, Tilburg.

28160 — FRANCE — Raw materials for paint manufacturing. Pautrot et Bonnet (I, A, D), 84 Ave. D'Iena, 75 - Paris 16.

28160 — FRANCE — Raw materials for manufacture of paint, plastics, textiles and specialties industries. Societe De Chimie Et D'Entreprises (A, D, I), 55 Rue La Boetie, 75008 Paris.

28162 — FRANCE — Crude turpentine sulfate; crude tall oil Pautrot et Bonnet (I, A, D), 84 Ave. D'Iena, 75 - Paris 16.

28163 — THAILAND — Colors for mixing with powder to make signal smoke in military use, colors: red, blue, violet; quantity: 500 kgs. each. Requests c.i.e. Bangkok prices, samples. Seeks distributorship arrangement. Bangkok Chemicals Ltd., Part. Attn: Mr. Pravat Limkairajsiri (R, D, I), 502 Pathumwan Circle, Phyathai Rd., Bangkok.

28190—PARAGUAY—Inorganic chemicals for textile mills. Exclusive agency. Comercial Luis A. Antebi (I, A), Teniente Farina 1068, Asuncion.

Synthetic materials

28213 — SWEDEN — Unique type of plastic packaging material that provides protective cover by layering plastic sheets; in some instances embossed to provide pockets which serve to cushion materials packed from external blows; preferably made of polyethylene film laminated. Tre Well AB Attn: Mr. Lars Kristrom (I, A, M), Hasthagsvagen 3-9, S194 00 Upplands Vasby.

28213 — VENEZUELA — Polyethylene, polypropylene and polyvynil chloride resins. Seeks exclusive agency or distributorship arrangement. Corporacion Par, S.A. (A, D), Apartado 62357, Quinta Atlanta, Avenida Aldredo Jahn (Entre 4A Y 5A Avenidas), Los Palos Grandes, Caracas.

28214—SINGAPORE—Epoxy resins for electrical insulation. Harrisons & Crosfield (S) Pte. Ltd., Attn: Mr. K. H. Watson, Mng Dir., Macdonald House, Orchard Rd., Singapore 9.

28232 — ISRAEL — Viscose fibers. J&M Kimelman Trading Co., Ltd. (E), 58 La-Guardia St., P.O. Box 9048, Tel Aviv. Willing to work on exclusive agency basis only.

28232 — PORTUGAL — Viscose fibers, staple, tow, and waste, for use in textile industry. Distributorship arrangement. Essergel-Sociedade De Representacoes E Gomercio Geral, Lda. (I, A), Avenida Da Republica 60-6 E., Lisbon.

28241 — ISRAEL — Nylon fibers. J&M Kimelman Trading Co., Ltd. (A), 38 La-Guardia St., P.O. Box 9048, Tel Aviv. Willing to work on exclusive agency basis only.

28242—ISRAEL—Synthetic fibers such as polyester and acrylic. J&M Kimelman Trading Co., Ltd. (A), 58 La-Guardia St., P.O. Box 9048, Tel Aviv. Willing to work on an exclusive agency basis only.

28242—PORTUGAL — Acrylic, polyester and other man-made fibers, staple, tow, and waste, for use in the textile industry. Seeks distributorship arrangement. Has traveling salesmen to canvass entire country. Imports, distributes, and sells raw cotton and man-made fibers at wholesale. Essergel-Sociedade De Representacoes E Comercio Geral, Lda. (I, A), Avenida Da Republica 60-6 E., Lisbon.

Soap, detergents, cleaning preparations, perfumes, cosmetics

28430 — PARAGUAY — Surface active and finishing agents for textile mills. Exclusive agency. Comercial Luis A. Antebi (I, A), Teniente Farina 1068, Asuncion.

Paints, varnishes, lacquers, enamels

28511 — AUSTRIA — Protective paints, compounds for building trade; wood preservation, impregnating preparations; roof coatings; novelty products in this line; concrete coatings; all for building trade. Interested in distributorship arrangement with exclusive rights for Austria. Lucrative market due to continued building boom. Firm is well-established manufacturer of pharmaceuticals, household chemicals, asphalt roofing and siding, etc.; annual sales volume estimated at $15 million, employs staff of 600 persons, including 25 salesmen. F. Joh. Kwizda-Chemische Fabrik (I, D, M), Dr. Karl Luegerring 6, A-1011 Vienna.

28511 — PARAGUAY — Automotive and machinery paints, enamels, primers and undercoaters. Exclusive agency. Guillermo Wolscham (I, A, R), Yegros 2079, Asuncion.

28515 — PARAGUAY — Automobile and machinery refinish lacquers. Exclusive agency. Guillermo Wolscham (I, A, R), Yegros 2079, Asuncion.

28516 — PARAGUAY — Automobile, truck and bus finishes. Exclusive agency. Guillermo Wolscham (I, A, R), Yegros 2079, Asuncion.

28517 — PARAGUAY — Automotive lacquers including acrylics. Exclusive agency. Guillermo Wolscham (I, A, R), Yegros 2079, Asuncion.

Agricultural chemicals

28790 — THAILAND — Fungicidal preparations for agriculture, captan 50 percent wettable powder. Requests c.i.f. Bangkok prices, samples. Requires distributorship arrangement. Imports mainly from Austria, Holland, W. Germany, France, Japan. Looking for sources of supply in U.S. The Seri Agricultural Chemicals Co., Ltd., Attn: Mr. Deja Suphantharida (A, D, I), 73 Chakrapetch Rd., Bangkok 2.

Fabricated rubber products

30692 — AUSTRIA — High pressure hydraulic hose. Industriebedarf Mock O.H.G. (I, A, D), Heinestr. 38, A-1020 Vienna.

Plastic products

30792 — ISRAEL — Sealed porous PVC plates for life-saving equipment. Thickness requested: 35MM and 50MM. A. Goren Ltd. (M), 20 Shlabim St., Tel Aviv/Jaffa. WTDR 4/72. Imports around $30,000-$40,000 PVC per year. Samples requested.

30796—NETHERLANDS—Plastic bathroom and toilet fixtures, plastic plumbing fixture fittings and trim. Handelsonderneming Rijmas, Attn: F. Langezaal (I, A, D), 93 Nieuwe Rijn, Leiden.

Abrasive, asbestos, nonmetalic mineral products

32913 — PARAGUAY — Emery cloth; water dispersable sandpaper for wood. Exclusive agency. Guillermo Wolscham (I, A, R), Yegros 2079, Asuncion.

Steel mill products

33123 — PARAGUAY — Tinplate, electrolytic, to manufacture corned-beef cans. Exclusive agency. Ricardo Alliana (A), 15 Agosto Esq. Haedo, Asuncion.

Primary smelting, refining of nonferrous metals

33347 — ISRAEL — Aluminum ingot primary production. Seeks exclusive agency. Traditional S.A. (I, E, A), 14 Habrosh St., Savyon 56915.

Secondary smelting, refining of nonferrous metals

33418 — ISRAEL — Aluminum extrusion billet secondary smelting. Seeks exclusive

agency. Traditional S.A. (I, E, A), 14 Habrosh St., Savyon 56915.

Rolling, drawing, extruding of nonferrous metals

33525—ISRAEL—Aluminum rod, bar and shapes extruded. Seeks exclusive agency. Traditional S.A. (I, E, A), 14 Habrosh St., Savyon 56915.

33527—ISRAEL—Aluminum ingot production in rolling mills. Exclusive agency basis only. Traditional S.A. (I, E, A), 14 Habrosh St., Savyon 56915.

33528 — ISRAEL — Aluminum extrusion billet produced in rolling mills. Seeks exclusive agency. Traditional S.A. (I, E, A), 14 Habrosh St., Savyon 56915.

33560 — FRANCE — Metallic tubes designed for use in high temperature nuclear reactor environment. These tubes are intended to contain thermo-couples; must be resistant to corrosion and high temperatures (1500-2000 degrees C.). Dimensions required: exterior diameters: 1 and 2 mm; length: between 200 and 400 mm. Tubes must be made of high resistance metals such as: molybdenum, tentalum, rhodium, etc. . . . Firm is a small company which supplies Commissariate a l'Energie Atomique (CEA), French equivalent of AEC. First order would be limited as CEA must test and approve both for CEA's and Electricite de France's nuclear reactors. Societe Mesurix—Attn. Mr. Jean Bernard Roggenam (A, D, R), Les Meurgers, 78730 Saint-Arnoult.

Heating apparatus, plumbing fixtures

34310 — NETHERLANDS — Bathroom and toilet fixtures, flush tanks, bathtubs, lavatories, sinks, etc. Handelsonderneming Rijmas, Attn: F. Langezaal (I, A, D), 93 Nieuwe Rijn, Leiden.

34320—FRANCE—Valves, taps, nuts for use in household plumbing. Emid Industries (I, A, D), 173, Faubourg Poissonniere, 75009. Paris.

34320 — NETHERLANDS — Plumbing fixture fittings and trip, single control bath and shower fittings, bathtub and shower combinations, other brass bathroom and toilet items. Handelsonderneming Rijmas, Attn: F. Langezaal (I, A, D), 93 Nieuwe Rijn, Leiden.

Fabricated structural metal products

34460—NETHERLANDS — Spiral stairs made of steel. Seeks agency arrangement. Handelmaatschappij N.J.W. Dix B.V., Attn: N. J. W. Dix, Mgr. (I, A, D, Exporter), 5 Pujnappellaan, St. Michielsgestel.

34492—AUSTRALIA—Seeks agency for aluminum, prefabricated & modular dwellings. & aluminum panels for prefabricated & modular dwellings. Wishes to diversify into import field. Newman, Mckay & Co., Attn: D. A. C. Hall (Finance Brokers, Property Developers, Exporters), Suite 11, 26 O'Connell St., Sydney. NSW 2000. WTDR in prep.

Construction, mining, materials handling machinery, equipment

35311 — SPAIN — Contractors off-highway wheel tractors. Comercial De Obras Publicas, S.A. (A, D), Dr. Fleming 52, Madrid 16.

35314 — SPAIN — Power cranes, draglines, shovels and parts. Comercial De Obras Publicas, S.A (A, D), Dr. Fleming 52, Madrid 16.

35316 — SPAIN — Mixers, pavers and related equipment. Comercial De Obras Publicas, S.A. (A, D), Dr. Fleming 52, Madrid 16.

35320 — NIGERIA — Specialist refining and processing equipment for lead/zinc ore: milling machinery, flotation tables, and dewatering and drying machinery. Equipment is for mill to handle 400/500 tons per day. M. O. George, Sales Mgr., Holman Brothers (Nig) Ltd. (I, A), 26 Burma Rd., P.O. Box 81, Apapa, Lagos.

35361 — ITALY — Chain hoists hand-operated up to three-ton capacity. Luigi Serri (I, R, D), Via S. Nicolo, 12, 34100 Trieste.

35370 — THAILAND — Garbage trucks, compression type, capacity 12 cubic meters or 21 cu. yds. Requests c.i.f. Bangkok prices, catalogs, brochures. Requires exclusive distributorship for Thailand. Thai Agency Engineering Co., Ltd. (A, D, I, R), 160-4 Soi Puth, Rama VI Rd., Bangkok.

Metalworking machinery

35410 — INDIA — Centering and facing machines, metal cutting cold saws, capacity 6" to 15", honing machines required by engine and aircraft industries, gear hobbing machines over 900 mm blank diameter, spline and spline shaft hobbing and grinding machines, internal and external thread milling machines, straightening machines, dishing and flanging machines to handle plates up to 50 mm thick and 4000 mm diameter and deep hole boring machines with capacity up to 600 mm and length up to 3000 mm. Garlick Engineering, Div. of the Empire Dyeing and Manufacturing Co., Ltd. (A, D, M), Bapurao Jagtap Marg, Saint Gadge Maharaj Chowk, Bombay 400011.

35414 — AUSTRIA — NC shaft grinding machines for use in production of textile machinery, machine tools. Industriebedarf Mock Ohg (I, A, D), Heinestr. 38, A-1020 Vienna.

35415 — AUSTRIA — NC lathes for use in production of machine tools, textile machines. Industriebedarf Mock Ohg (I, A, D), Heinestr. 38, A-1020 Vienna.

35416 — AUSTRIA — NC milling machines for use in production of machine tools, textile machines. Industriebedarf Mock OHG (I, A, D), Heinestr. 38, A-1020 Vienna.

35420 — INDIA — Extrusion presses for non-ferrous metals, both cold and hot and trimming presses required by forge shops, capacity 600 to 1000 m.t. Garlick Engineering, Div. of Empire Dyeing & Manufacturing Co., Ltd. (A, D, M), Bapurao Jagtap Marg, Sant Gadge Maharaj Chowk, Bombay 400011. WTDR 9/72.

35423 — FRANCE — Wire drawing and stranding machines Emid Industries (I, A, D), 173 Faubourg Poissonniere, 75009 Paris.

35451 — SWITZERLAND — Advanced machine tool accessories, new invented items. Seeks exclusive distributorship. J. H. Brigel (I, A, D), Seestr. 85, CH-8712 Staefa.

35452 — SWITZERLAND — Equipment for dimensional measuring, dimensional gauges, comparators, adjustable size limit gauges, pneumatic gauges, inspection, checking equipment. Seeks exclusive distributorship. J. H. Brigel (I, A, D), Seestr. 85, CH-8712 Staefa.

35480 — INDIA — Special purpose machines used by cordite factories for manufacturing shells and cartridges and automatic electronic controlled expansion equipment. Garlick Engineering, Div. of Empire Dyeing & Manufacturing Co., Ltd. (A, D, M), Bapurao Jagtap Marg, Sant Gadge Maharaj Chowk, Bombay 400011. WTDR 9/72.

35481 — FRANCE — Rolling mill machines. Miss Monique Dreyfus, Chairman & gen. mgr., plans to visit U.S. in June and expects to meet interested U.S. firms. Emid Industries (I, A, D), 173 Faubourg Poissonniere, 75009 Paris.

35484 — SWITZERLAND — Automotive maintenance equipment, service station equipment. Garage Bocco AG, Messrs. Duch or Forrer, Mgrs. (I, D, R), Staatstr. 914, 8730 Uznach.

Special industry machinery

35520—PARAGUAY—Equipment to convert cotton linter into diapers, sanitary napkins, other linter by-products; weaving machinery to produce broad and fine unfinished cotton fabrics up to 3 meter width; and equipment to convert fiber into unfinished thread; 100 tons per month. Exclusive agency. Miguel J. Guida (A), Avenida E. Ayala Y Feldman, Asuncion.

35530 — PARAGUAY — Sawmill, parquet, plywood, particle board, veneer equipment. Exclusive agency. Miguel J. Guida (A), Avenida E. Ayala Y Feldman, Asuncion.

35531—MALAYSIA—Saw mill machinery with technical know-how. Seeks agency arrangement. Pernas-Sime Darby Sdn. Bhd. (I, A, D), 54 Jalan Ampang, P.O. Box 252, Kuala Lumpur. Attn: B. R. Perry, Gen. Mgr. Cable Address: Persime.

35593 — CANADA — Plastic machinery, extruders, injection molding machines, take off and accessory equipment. Canadian Plastics, Rubber Machinery—Contact: J. B. Davidson, Pres. (A), 216 Isabella Ave., Mississauga, Ontario, L5B 1A9.

35594 — CANADA — Rubber machinery, presses, extruders and roll covering machines. Canadian Plastics, Rubber Machinery—Contact: J. B. Davidson, Pres. (A), 216 Isabella Ave., Mississauga, Ontario L5B 1A9.

35595 — PARAGUAY — Complete plant for cotton processing (cotton ginning to cotton by-products). Seeks exclusive agency. Comercial Luis A. Antebi (I, A), Teniente Farina 1068, Asuncion.

General industrial machinery

35690 — FRANCE — Automatic fire sprinklers. Emid Industries (I, A, D), 173 Faubourg Poissonniere, 75009 Paris.

Office, computing, accounting machines

35720 — PORTUGAL — Typewriters, portable and standard, manual and electric. Distributorship arrangement. Ivo Mendonca. Lda. (I, A), Rua Dos Fangueiros 116, Lisbon.

35741—ISRAEL — Electronic calculators such as desk-top, mini and pocket-size with or without memory. Also with/without rechargeable battery with green display; 220 volts. A. Gellis Paper Products Co. (I, M, A), Hakishon 27, P.O. Box 324, Beni Brak. Interested in working on an exclusive agency basis only.

Requests catalogs and c.i.f. Lod Airport quotations.

35741 — PORTUGAL — Calculating, accounting, and adding machines, manual and electric. Ivo Mendonca. Lda. (I, A), Rua Dos Fanqueiros 116, Lisbon.

35760—MALAYSIA—Weighing bridges, weighing scales (kitchen, baby scales, etc.). Joo Hong Electrical & Engineering Co. (Sel) Sdn. Bhd. (I, A, D), 38, 1st Floor, Jalan Yong Shook Lin, Petaling Jaya, Selangor.

Electric transmission, distribution equipment

36123 — THAILAND — Voltage stabilizers used in maintaining a steady flow of electric power, capacity range 50-150 KW. Seeks distributorship arrangement. Thai Engineering & Equipment Ltd., Part. Attn: Pleng Punlee (R, A, D, I), 1182/1 Nakornchaisri Rd., Bangkok 3.

Household appliances

36393 — NETHERLANDS — Appliance type garbage compactors for home use; 220 volt 50 cycle only. Thomassen & Drijver Verblifa N.V. (I, D, M), Zutphenseweg 51; Deventer, Attn: B. J. J. Bosman.

Electrical lighting, wiring equipment

36424 — SWEDEN — Sealed beam lights for motor vehicles. Bil-Kemi AB (I, A, D), Box 337, S-501 06 Boras.

Communication equipment

36612—JAMAICA—Telephone answering systems electronic or electro-mechanically operated. Wishes to act as exclusive agent in beginning with option of being distributor later. Market will be exclusively Jamaica at initial stage, with possibility of expansion to other Caribbean countries. Has very capable servicing facilities. Requests brochures, prices, all technical literature on product. All communications should be directed to Donald Wellington, Mgr. of lighting and professional equipment sales. Homelectrix Ltd. (I, D, R), 53 Newport Boulevard, Newport West, Kingston.

36612 — PARAGUAY — Telephone patching equipment, VHF and UHF. Exclusive agency. Ace S.R.L. (I, A, D), Casilla Postal 651, Asuncion.

36621 — PARAGUAY — Transceivers, SSB and VHF, fixed and mobile operation. Ace S.R.L. (I, A, D), Casilla Postal 651, Asuncion.

36623 — SWITZERLAND — Electric and electronic alarm and safety systems for in- and outdoor installation in homes, banks, industrial facilities, etc. Siegmund & Hofmann AG, H. R. Kaeser, Pres. (A), Langacherstr. 16, 8127 Forch. WTDR in prep.

Electric components, accessories

36740 — JAPAN — IC's, digital, for data communications devices (Modem, UART, etc.); LSI's, memory products and custom design for use in desk top calculators, computers, automobiles, watches, etc.; audio electronic components such as re transistors, op-amplifiers, other circuit components; materials for industrial electronics such as GA AS, GA P, conductive epoxy, novel wafer; opto-electronics components including semi-conductors, lasers. Fuji Electronics Co., Ltd. (I, A), 29 Kanda Awaji-Cho 2-Chome, Chiyoda-Ku, Tokyo 101.

Electrical machinery, equipment, supplies

36930 — FRANCE — Electromedical and electrotherapeutic apparatus. Codimex SA. (A, I, E), 143 Rue Felix Faure, 75015 Paris.

36930 — FRANCE — Electronic medical equipment: cardiology, neurology, neurophysiology, physiology. Sega Electronique (I, D), 5 Rue Broussais, 75014 Paris.

Motor vehicles, equipment

37110 — BOLIVIA — Motor vehicles, on agency basis. Correspondence in Spanish, Portuguese or French. Casa "Cir" de Jacinto Ale Guerrero (R, I, D), Casilla 63, Tarija.

37110 — BOLIVIA — Motor vehicles, on agency basis. Correspondence in Spanish or English. Repac Ltda. (R, I, D), Casilla 572, Santa Cruz. WTDR 4/73.

37141—AUSTRALIA—Motor vehicle accessories, specially antipollution equipment, vapor injection units, etc. Seeks sole agency agreement but will consider other agency agreement & distributorships. Territory includes all Australian states & Pacific Islands. Company would appreciate samples, brochures & pamphlets, prices c.i.f. in Aust. dollars. Company also seeks information on back up advertising material & brochures. Conform Investments Pty. Ltd., Attn: John Sharpe (I, M, Exporters), 1086 Pacific Highway, Pymble. NSW 2073.

37141 — JAPAN — Auto emission control devices, safety belts, any other car parts (except bearings) for sale to Japanese OEM's. Firm is major supplier of bearings to all Japanese automotive manufacturers. Prepared to utilize excellent contacts to act as agent for U.S. parts companies. Nippon Seiko K.K., Foreign Operations Div. (I, A, M), 3-2 Marunochi 2-Chome, Chiyoda-Ku, Tokyo 100.

37141 — SWITZERLAND — Genuine novelty automotive accessories, all kinds. Garage Bocco AG, Messrs. Kuch or Forrer, Mgrs. (I, D, R), Staatsstr. 914, 8730 Uznach.

Ship building, repairing

37322 — JAPAN — Small pleasure boats, without motors. Nippon Seiko K.K., Foreign Operations Div. (I, A, M), 3-2 Marunocuchi 2-Chome, Chiyoda-Ku, Tokyo 100.

37323—AUSTRALIA—Seeks agency for sailing yachts, length 26 ft. to 40 ft. and completely fitted out. Wishes to diversify into import field. Newman, Mckay & Co., Attn: D. A. C. Hall (Finance Brokers, Property Developers, Exporters), Suite 11, 26 O'Connell St., Sydney. NSW 2000. WTDR in prep.

Transportation equipment

37990 — JAPAN — Camping equipment, particularly automobile-related. Nippon Seiko K.K., Foreign Operations Div. (I, A, M), 3-2 Marunouchi 2-Chome, Chiyoda-Ku, Tokyo 100.

Optical instruments, lenses

38311 — FRANCE — Electronic microscopes. Wishes to act as exclusive distributor. Paul Louis S.A. (I, D), 27 Rue Jean Jaures, 92 Bois Colombes.

Surgical, medical, dental instruments

38410—FRANCE—Surgical and medical instruments: cardio-vascular and monitoring equipment. Paul Louis S.A. (I), 37 Rue Jean Jaures, 92 Bois Colombes.

38410—FRANCE—Surgical and medical instruments: ultrasonic equipment. Codimex S.A. (A, I), 143 Rue Felix Faure, 75015 Paris.

38410 — FRANCE — Operating room equipment, cardio-vascular equipment, endoscopic equipment, other medical equipment (lung, heart, etc.). Simmho S.A. (A, R, I), 13 Rue de Guebwiller, 67100 Strasbourg.

38410—FRANCE—Surgical and medical instruments: ultrasonic equipment. L' Electronique Appliquee (A, I), 98-100 Rue Maurice Arnoux 92120 Montrouge.

38410 — THAILAND — Orthopedic fracture instruments and appliances: neurosurgical instruments; other instruments pertaining to E.N.T. (ear, nose, throat) treatment. Requires distributorship arrangement, preferably on exclusive basis, throughout Thailand. Bangkok Unitrade Co., Ltd., Attn: Mr. Dusit Wachathon (R, D, I), 292/18-19 Siam Square SOI 4, P.O. Box 1819, Bangkok.

38421—FRANCE—Prosthetic appliances: artificial kidney. Simmho S.A. (A, R, I), 13 Rue de Guebwiller, 67100 Strasbourg.

38423—SPAIN—Military protection helmets for parachutists. Armando Navas (A), Rodriguez San Pedro 2, Madrid 15.

Toys, amusement, sporting goods

39410—JAPAN—Hobby sets and handicrafts for adults. Distributorship. Teramoto Shoji. Ltd. (I, A), 10-7 Kyomachi 3-Chome, Kokura-Ku, Kitakyushu-City.

39490 — JAPAN — Sporting and athletic goods. Seeks agency arrangement. Japan Merchandise Supply Co., Ltd. (I, D, Exporter), 8 Satsuma-Cho 2-Chome, Mizuho-Ku, Nagoya 467.

Manufacturing industries

39962 — AUSTRIA — Industrial flooring for garages, automotive repair shops, other workshops. Interco Ges.M.B.H. (I, A, R), Laxenburgerstr. 128/28, A-1100 Vienna.

39992 — TUNISIA — Complete 12 alley bowling to be installed at Hotel du Lac in Tunis, 50 slot machines, 20 electric billiards, 10 juke boxes to be installed in various hotels owned by SHTT. Monsieur le President Directeur General de la Societe Hoteliere et Touristique de Tunisie, 52, Ave. Habib Bourguiba, Tunis. SHTT interested importing above equipment and in acting as agent for U.S. suppliers who would train Tunisian technicians for maintenance. SHTT government agency which owns 10 large first class hotels throughout Tunisia.

39999—JAPAN—Novelties for gifts and/or prizes, esp. sports-related. Teramoto Shoji, Ltd. (I, A), 10-7 Kyomachi 3-Chome, Kokura-Ku, Kitakyushu-City.

39999—JAPAN—Living room decorative articles. Seeks agency agreement. Japan Merchandise Supply Co., Ltd. (I, D, Exporter), 8 Satsuma-Cho 2-Chome, Mizuho-Ku, Nagoya 467.

Engineering, architectural and surveying services

89110 — BOLIVIA — Architectural services. Design of new Central Bank Bldg. to include auditorium with capacity for 800 people to be erected on 1,524 sq. m. site across street from present bank building. Desires that construction be completed by May 1975. Banco Central de Bolivia (central bank), Casilla 3118, Calle Mercado Esq. Ayacucho, La Paz. Cable Address: "Naviana," La Paz.

Future Construction Abroad

HONG KONG—The Hong Kong Post Office will construct a new **general post office building** in downtown Hong Kong and an **international mail processing facility** in Kowloon during 1974. There will be separate tenders for the Hong Kong building; the Kowloon mail facility; mail handling equipment for the Hong Kong building, and mail handling equipment for the Kowloon facility. Details of tenders and documents should be available in late August or early September. Winning bid on the Hong Kong equipment is expected to be in the range $1 to $1½ million and the Kowloon equipment in the range of $2½-$3 million. The Post Office has preliminary drawings and specifications ready now, but if a bidder can offer an improved facility within the price range or alternate bids on the Post Office specifications and the bidder's own specifications, this would be acceptable. The form of bidding will be "modified turnkey." The successful bidder will provide and install all the equipment under the general supervision of the Post Office. No bids will be accepted for individual pieces of equipment. Interested U.S. firms should contact C. L. Owens, Controller, Hong Kong General Post Office, Pedder St. at Des Voeux Rd., Hong Kong.

LEBANON—Radio Liban (RL), Beirut, the State's only radio network in Lebanon, is engaged on a LL20 million expansion program. The first stage consists of construction and equipping of an **FM broadcasting center.** The second stage is by far the largest. It consists of construction of several MW centers throughout the country. RL expects to call for bids on the MW expansion in the very near future. The second stage should account for more than half of the LL20 million budgeted for the whole program. The third stage involves the short wave (SW) transmission facilities of RL and is in the hands of a study group. The size of the ultimate facility has not yet been decided, but may depend on the decisions taken with regard to the MW network.

NIGERIA—The Federal Military Government (FMG) plans to spend $145.9 million to establish **special hospitals** in eight states. Thus far, North Central, Kano, Midwest, South Eastern, and East Central States have qualified for these hospitals. An official in the Federal Ministry of Health, Broad St., Lagos, stated that the hospitals will not necessarily be new; some existing hospitals will be upgraded to teaching standard. It has not yet been determined whether the individual states will purchase the necessary medical equipment on their own, or whether the FMG will do this. Also undecided are the type and amount of equipment to be purchased, and whether the purchases will be by tender or negotiation.

SENEGAL—The Director of an African-owned **supermarket** SAHM (Societe Africaine des Halles Modernes) is looking for an American **supermarket corporation** to assist in the planning, construction (perhaps with U.S. prefabricated materials), and management of three new 27,000-sq. ft. outlets. The total cost of the project is estimated at $3 million. The local company is interested in a joint venture in which the U.S. firm assumes the majority interest. Interested U.S. firms should contact, preferably in French: Abdou Salem N'Diaye, director, Societe Africaine des Halles Modernes, B.P. 2131, Dakar.

CANADA—The City Parking Holdings Ltd. plans to start work this September on the first phase of a **$50 million office-hotel-shopping complex** in the heart of Ottawa. When completed, the four-acre site, called Canada Centre by the developer, will contain two office towers, a Four Seasons hotel, at least two major department stores, and 50 to 60 shops, theatres and restaurants. Pedestrian walkways are an important feature of this proposal. The first phase, scheduled for completion in late 1976 or early 1977, will consist of the 20-story, 420-room Four Seasons hotel, an office tower, a four-level department store, and three levels of shops. The second phase is scheduled for completion shortly after the first, but a definite time has not been set. Offers from U.S. firms for building supplies and equipment are welcomed and should be addressed to: Kenneth Allan, vice president, City Parking Canada Ltd., 11 Adelaide St. West, Toronto, Ontario M5H 1L9, (416-364-4361).

CANADA—Premier Peter Lougheed told the Alberta Legislature that a substantial **evaluation drilling program** will commence this summer as the first step in a project designed to harvest four trillion cubic feet of natural gas believed to be in the Suffield Block area southeast of Calgary. About 7 wells are expected to be drilled later this year. Alberta Minister of Mines William Dickie said that the drilling of the evaluation wells could cost the provincial government $2.5 million, with an additional $8.9 million required if the proven reserves are as great as the estimated reserves. Minister Dickie stated that if the Alberta Government finds the project feasible, it could employ one of three methods for development of the area: ask for cash bids from private companies who wish to undertake the commercial development of the field; a crown corporation could be formed to proceed with development; or a "farm out" arrangement could be followed.

ARGENTINA — DEBA (Direccion de Energia de Buenos Aires) plans to construct a **pumped storage hydroelectric power complex** at Laguna La Brava, near Balcarce. DEBA estimates that the capacity of this complex, which will be carried out in three stages, will be between 1,200mw. and 1,800mw. The project will involve the construction of an artificial lake able to store 8 cubic hectometers of water. Six 200-mw. reversible turbines will be installed in caverns, and the power will be distributed in modules of 400-mw. or 2 turbines per stage. Total investment for this project will be $130-$140 million. The first stage alone will demand an investment of $40 million. Construction may begin in 1974, with estimated date of completion 1977-78. Local industry will have a 65 percent participation, while special equipment and know-how will be imported.

JAMAICA—Work has started on a **$55 million housing-resort project** eleven miles east of Kingston. Roadways are to be constructed and a 2½-million-gallon reservoir built. The source of the water is eight miles away and it will have to be lifted some 800 feet to the reservoir. The development is to be done in three stages: construction of 105 three-bedroom units; building of additional houses and the selling of individual lots; and construction of three hotels, eight highrise apartment buildings (tallest will be 18 stories), three shopping plazas, a helicopter base and two marinas capable of accommodating 100-foot yachts. The project is expected to spread over several years. U.S. suppliers can sell booster pumps, elevators, central air conditioners and steel pilings. Developers: Dover Properties Ltd., 15A Old Hope Rd., Kingston 5. Designers: Folkes Harrison & Associates, 1A Oxford Rd., Kingston 5. Contractors to be assigned.

FRANCE — Elf-Erap's Ambes **refinery near Bordeaux will be increased in capacity** from two million tons per year to six million tons per year, and a petroleum coke plant will be a part of the expansion project. The refinery expansion will require an investment of 420 million francs and the coke plant 220 million francs; both should be finished by late 1975 or early 1976. In addition to Elf, other participants in the refinery will be Chevron-Texaco, Elf's partners in refining and distribution in France, British Petroleum and Petrofina. Continental Oil Co. (CONOCO) will be a 50/50 partner in the petroleum coke plant. Although Elf will look mostly toward French suppliers for equipment, Foster Wheeler will undertake construction of the distillation tower and CONOCO will have considerable input regarding the petroleum coke plant. Interested U.S. firms should write: M. Burq, Elf-Erap, Refinery Dept., 12, rue Jean Nicot, 75007, Paris.

BOLIVIA—Representatives of the national smelting company, Empresa Nacional de Fundiciones (ENAF), La Paz, and of the Czechoslovakian firm Skoda Export have signed an agreement whereby Skoda will do a feasibility study of a **ferroalloys plant** near the villages of Guaqui or Calacoto south of Lake Titicaca. The plant will produce 500 m.t. of ferrotungsten and 300 m.t. of ferrovanadium alloys per year.

BRAZIL — The Brazilian Federal Government has made available to the Companhia Petroquimica do Nordeste (COPENE), the division of PETROBRAS responsible for the development of the **Bahian petrochemical complex,** approximately $250 million for the construction of the first phase of the complex. This represents 60 percent of the total cost of the first phase. The other 40 percent, or $167 million, will come from direct investments by PETROBRAS and private investors, Brazilian and foreign. Total investment in the complex will be $650 million. This includes a $90 million cracking plant which should begin operations in 1975. The first phase includes the following units: raw materials unit; utilities unit; maintenance unit; ammonia and urea plant; TDI plant; caprolactam plant; DMT plant; methanol plant, and acrylonitrile plant. U.S. firms interested in this project may contact PETROBRAS, Avenida Presidente Vargas 583, 17°, Rio de Janeiro, GB.

INDIA—The Maharashtra State Electricity Board (MSEB), Mercantile Bank Building, Mahatma Gandhi Rd., Bombay 400 001, (Maharashtra Government's agency responsible for the development of electric power resources and the distribution of electric energy in the State), **plans to build super thermal power stations** during the Fifth and Sixth Five Year Plans (1974-79 and 1979-84 respectively). The Chanda/Ballarshah coal field area has been selected for the construction of a 1300-MW station, and other sites are under investigation. Expansion of the existing smaller thermal stations in the State is also contemplated. Opportunities for U.S. manufacturers or suppliers of large power generating units appear promising.

PARAGUAY—Serious consideration is being given to building **a railroad from Asuncion to the site of the Itaipu high dam.** The project has been expanded to include construction of a line in Brazil to Saltos del Guaira and another section connecting this new Brazilian line to the proposed rail connnection from Villarica, Paraguay to Itaipu. If built, such a railroad would connect Asuncion by rail with the main Brazilian system, and beyond serving the Itaipu project would allow shipment of freight to Paraguay's free port at Paranagua, Brazil. Total construction would require building an estimated 375 miles of new rail lines, and eventual reconstruction of about 275 miles of existing routes in Paraguay which are presently in very poor condition. Special advantages may exist for an electrified railroad. Low cost electricity will soon be Paraguay's most readily available energy source. Interested U.S. engineering and construction firms should contact: Presidente Ricardo Garay, Ferrocarril Carlos Antonion Lopez, Calle Mexico y Presidente Ayala, Asuncion.

BRAZIL—National Bulk Carriers Inc., an American-owned Japanese company (one of 50 companies that comprise the Ludwig industrial network, recently concluded a feasibility study and negotiations with the Pernambuco Government to construct a **$160 million drydock** at Suape about 20 km. south of Recife near the industrial city of Cabo. Four drydocks will be built. The smallest of the drydocks will be for ships up to 100,000 tons, the next for ships up to 250,000 tons, the third for ships up to 500,000 tons, and the largest for ships of up to 1,000,000 tons. The largest drydocks will be able to handle ships 50 meters wide and 500 meters long. While a final decision has not yet been made, construction is expected to begin during 1973 and be completed within two years. Construction will be financed from the financial resources and borrowing connections of the Ludwig Group. National origin of the equipment to be used is unknown. Purchasing decisions will be made at the company headquarters in Japan.

JAMAICA—KIW Group Ltd. will build a **large commercial and warehouse complex** in Montego Bay on lands acquired from Montego Freeport. Estimated cost of building and development is $1.1 million. The complex will consist of showroom facilities for products, warehouse stocking space, asphalted loading and unloading areas and parking space. There will also be janitor service for cleaning, security service, telephone answering facilities and radio link with Kingston. The project is to offer 30,000 sq.ft. of office and showroom space and 80,000 sq.ft. of warehouse space for rentals. Construction commenced in mid-April. U.S. suppliers of structural steel sections, forklift trucks, refrigerated trucks, janitor service supplies, telephone answering systems and radio communication systems should contact the developers: KIW Group Ltd., 138 Spanish Town Rd., Kingston 11, Phone: 933-6121, Attn: N. G. Martin. Architects: Mitchell & Associates, 42B Union St., Montego Bay P.O. Contractors to be assigned.

GREECE—P. Manessis Brothers S.A., Corfu, plans to build a **470-bed class A hotel/bungalow complex** at Aghios Stephanos, Corfu Island, a highly-developed tourist center. Cost of the project, including ancillary entertainment and sports facilities, is estimated at $4.3 million. Promoter of the project is interested in negotiating management or lease contract with a major U.S. hotel chain, and receiving catalogs and other available descriptive literature, including price lists, covering hotel food service and laundry equipment, water softening equipment, biological waste disposal equipment, and swimming pool equipment.

PARAGUAY—Plans have been announced to build **a plant near Puerto Vallemi to produce 3-5 million mt of cement,** primarily to supply the hydroelectric projects of Itaipu, Yacyreta-Apipe, and Acaray II. A major problem will be transporting the cement from Vallemi to the site. Interested firms can contact the feasibility engineers. Proposals, including one being actively promoted by Japanese interests, call for construction of an electrified railroad from Asuncion to Encarnacion with a spur to Itaipu. No feasibility study has been seen, but since most right-of-way is already owned and fuel costs would be minimal, the scheme would seem to be attractive. Barging and hauling over paved roads are the other alternatives being considered. Feasibility engineers studying Itaipu are: International Engineering Co., Inc., 220 Montgomery St., San Francisco, Calif. 94104; for Yacyreta-Apipe they are: Harza Engineering Co., 150 S. Wacker Dr., Chicago, Ill. 60606. Other sources of information are: Comision Mixta Argentina-Paraguaya para el Rio Parana, Ministerio de Relaciones Exteriores, Palacio de Gobierno, Asuncion; Comision Mixta Tecnica de Yacyreta-Apipe, Delegacion Paraguaya, Ministerio de Defensa Nacional, Avda. Mariscal Lopez y Vice Presidente Sanchez, Asuncion; Secretaria Tecnica de Plainficacion, Calle Padre Cardozo 560, Asuncion; ANDE (Administracion Nacional de Electricidad), Calle Iturbe 175, Asuncion.

CANADA—Firestone of Canada plans to **expand its manufacturing facility** in Joliette, Quebec to increase its production of radial tires. Construction is expected to start in mid-1973 and be completed by the end of 1974. Total investment for plant and new equipment has been reported between C$10-C$40 million. According to the Firestone plant manager at Joliette, tenders for the equipment will be by invitation. In view of this, any U.S. supplier wishing to participate in this project should communicate directly with Manley Spencer, chief purchasing agent, Firestone Tire and Rubber Co. of Canada Ltd., 1579 Burlington St. East, P.O. Box 400, Hamilton.

MALAYSIA—The Government intends to have its first nuclear power station operating in the mid-1980's. Malaysia's nuclear plans are incorporated in a planning document submitted to the National Electricity Board (NEB). Further investigation will be required before determination of the specific type. By 1986-87 nuclear power will be essential to the Malaysian system. Interested U.S. companies should contact the Government of Malaysia, Ministry of Public Works & Power, Jalan Maxwell, Kuala Lumpur.

NETHERLANDS—Work is expected to begin on a new **$35 million tunnel under the Oude Maas River in Rotterdam** in late 1974, with completion sometime in 1978. The tunnel itself will probably be constructed by the sinking tunnel method, as was Amsterdam's Metro tunnel. The actual construction of the tunnel will be open to bid sometime in early 1974. The time for submitting a tender will probably be 60 days, with bids submitted to the Dept. of Public Works. Because experienced local Dutch construction firms will be bidding, the best way for U.S. companies to bid on this project would be in conjunction with a Dutch company listed below. The best opportunity for U.S. firms would probably be in the area of supplying equipment and material for the construction of the tunnel, such as pumps, diving apparatus, electronic positioning equipment, and similar items. Inquiries on this project can be made to: J. Arnoudse, deputy director, Construction and Harbor Div., Rotterdam Dept. of Public Works, Rotterdam. Leading Dutch construction firms who may be bidding on this project are: Hollandsche Beton Groep, Generaal Spoorlaan 489, P.O. Box 81, Rijswijk, Attn: Ir. J. G. Gooden, marketing development adviser; Nederhorst N.V., P.O. Box 7, Gouda. Attn: Drs. J. de Winter; Bredero N.V., Jaarbeursplein 17, Utrecht, Attn: Ir. W. R. Hoving; and Van Hattum & Blankevoort N.V., P.O. Box 3, Beverwijk, Attn: Ir. K. von Exter.

YUGOSLAVIA — The Adriatic Steelworks at Split will build its long-planned heavy-plate mill, initially to produce 500,000 tons of steel plate annually for the Yugoslav shipbuilding industry. Though its planning is still preliminary, the steelworks wishes to establish contacts with U.S. firms capable of supplying the $30-40 million in imported equipment needed, and to negotiate a long-term delivery contract for 650,000 tons of steel slabs annually as raw material. The Yugoslavs might seek some form of joint-venture participation by U.S. firms. Interested U.S. firms should contact either General Director Vladimir Roje or Development Manager Pavasovic at: Jadranska Zeljezara—Split, 58000 Split, Radnicko Setaliste 22.

JAMAICA — The National Water Authority is developing **four water supply schemes** in St. Ann, on Jamaica's north coast. Prime Minister Michael Manley has announced that some $640,000 is to be provided in the 1973-74 budget to finance the schemes, three of which have already been started. U.S. suppliers of valves, pumps and chlorinators, have the opportunity of selling to the National Water Authority through the Jamaican Government's Department of Supplies. For further information on the type of equipment needed, contact: Supply Division, Ministry of Finance, 1 Shalimar Ave., Kingston 4.

THAILAND—The International Development Association (IDA) has approved a $19.5 million credit to help finance a project designed to **improve educational facilities.** The project is scheduled for completion in June 1978 at a cost estimated at $39 million. The project will aid 10 primary teacher training colleges which will teach agriculture, animal husbandry and rural sociology in addition to the standard subjects. It includes site improvement for, and construction, furnishing and equipping of, seven such colleges, and provision of equipment for the remaining three colleges which are already under construction. Equipment and furniture will be provided to 32 existing general secondary schools, and building extensions will be made in 21 of these schools, making it possible for them to offer pre-vocational courses in agriculture, home economics, commerce and farm mechanics, starting at grade 10. The project also includes establishment of a National Curriculum Development Center which is intended to play a leading role in curriculum reform, as well as to provide in-service training for school administrators, inspectors, education planners and teacher trainers. The Faculty of Science at the Prince of Songkhla University in southern Thailand also will be expanded. Contracts will be awarded on the basis of international competitive bidding. Interested U.S. construction and engineering firms and suppliers of equipment should write directly to: Khunying Amphorn Meesook, Deputy Under-Secretary of State, Ministry of Education, Rajdamnern Ave., Bangkok.

JAPAN—Mitsui Shipbuilding & Engineering Co., 6-4 Tsukiji 5-chome, Chuo-ku, Tokyo 104, representatives confirmed a recent press report on the firm's intention to construct in 1974 a **370-meter-by-50-meter LNG tanker building berth, along with cryogenic tank manufacturing facilities,** at its Tamano Shipyard in Okayama Prefecture. Although the firm has not yet obtained an order for an LNG tanker, they wish to be prepared for future demand. Mitsui has not yet made a formal application for government approval.

ZAIRE—The Enzymes Refiners Assn. (ENRA), the world's only major producer of papain is **expanding its present Beni plant capacity** from seven tons of papain power a month to thirty five tons. The company is also planning to **open a second plant in Latin America** in 1974. Ecuador has been mentioned as the most likely site. Although the size of the new plant is yet to be decided, it will be on the same order as the Beni plant, and well over $1 million in machinery alone will be needed. The patented process is basically a simple centrifuge, filtration and evaporation procedure and U.S. manufacturers of such machinery should be competitive, particularly at the proposed Latin America plant.

CANADA—Work on the C$300 million, **10-year sewage treatment project** for the island of Montreal has been delayed but tenders for the first of the **collector sewers** should be called in 1974 and those for the **treatment plant** in 1975. The Montreal Urban Community (MUC) planners now feel that it would be preferable to have one sewage treatment plant instead of two and they have asked the Environmental Protection Service for its approval. The cost of the project includes C$175 million for the sewers and the remainder for the treatment plant. The sewage treatment plant, to be built in the northeast section of the island of Montreal, will provide primary treatment only, and there are at present no plans for secondary treatment. The entire project is due to be operational by 1981. U.S. suppliers of advanced sewage treatment equipment or processes are welcome, and inquiries should be addressed to: Jean Marcotte, director, Water Purification Office, Montreal Urban Community, 385 Sherbrooke St. East, Montreal.

PAKISTAN—Hazara Fertilizer Ltd. is planning **a new fertilizer plant** to be constructed near Havelian, Hazara District, N.W.F. Province. The new plant will manufacture phosphoric acid and triple superphosphate with a total capacity of 90,000 tons/year P_2O_5 using sulphuric acid, which will also be produced in the plant. Financing and government approval have not been arranged yet, but the project should offer substantial sales opportunities for U.S. firms in the future. A report on this project prepared by Sarhad Development Auth., PIA Bldg., P.O. Box 172, Peshawar, is available from the U.S. Department of Commerce, Trade Opportunities Sect., BIC-267, Rm 1322, Washington, D.C. 20230.

SOUTH AFRICA—The Natal Provincial Administration has begun an ambitious program to **modernize its hospital facilities.** The Natal Hospital Directorate has allocated some $71 million as capital costs for the construction of new hospitals and the renovation and expansion of existing facilities. A like amount will be expended on equipment. The projects being undertaken include a new specialized $27 million multi-racial facility which will concentrate sophisticated cardo-thoracic and neurosurgery and high voltage therapy services at one institution serving all Natal. Also on the drawing board is a new 1,000-bed general hospital for Natal's capital, Pietermaritzburg. Construction is scheduled for 1975 and expected to cost $21.3 million. A similar, though initially smaller, hospital (250 beds) is planned for the developing Newcastle area at a cost of $8.5 million. Also of interest is the renovation of existing hospital facilites at Ladysmith and Dundee which will entail expenditures of $6.5 million next year. U.S. firms desiring more information can write to: Directorate of Hospital Services, Burger St., Pietermaritzburg. Tender lists can be obtained from Mr. van der Walt, Central Supplies Div., Natal Provincial Admin., Pietermaritzburg.

JAMAICA—Island Life Insurance Co., a subsidiary of Manufacturers Life Co. of Canada, is building a **four-story office block in New Kingston.** The centrally air conditioned building of some 22,000 sq. ft. will cost some $1.2 million. Completion is set for late 1973. Opportunities for U.S. suppliers include: high quality drapes, electric auxiliary generating plant to run all electrical facilities when the public supply fails, lighting fixtures and a high speed elevator. Developers—Island Life Insurance Co., Ltd., 34 Duke St., Kingston, (929-2350). Architects—McMorris Sibbley Robinson, 2a Caledonia Crescent, Kingston 5, (926-1670). Contractors—L. G. Subratie Engineering Ltd., 35 Dunrobin Ave., Kingston 10, (924-5681).

QATAR—The Ruler of Qatar, Shaikh Khalifa, has outlined plans for the State's future economic development: *Petroleum*—Qatar National Petroleum Co., Doha, has been formed to practice all processes of the oil industry inside and outside the country. It will also manage all oil investment projects entrusted to the company. *Education*—Establishment of a Teachers' College and a Women Teachers' College are the first step towards the establishment of Qatar University. Twelve elementary, preparatory, and secondary schools will be founded next year. Owing to the special significance of industrial education, the expansion has begun on the Technical Training Center where new training streams will be added. *Medical*—A new 600-bed hospital will be built in Doha, and fully-equipped hospitals, will be established in each principal town, together with medical centers to be set up at various city quarters to facilitate the free medicine and free medical treatment for all citizens. *Communication*—Studies have been completed on expanding the automatic telephone network to all parts of the country. The Qatar Government also began studies to establish an earth station for space communications which, when completed, will play a significant role in facilitating telephone communications with the outside world and will radically develop television services. *Port and Airport*—The Qatar Government intends for Doha Port to be able to handle the biggest possible number of ships. As a result of the expansion of Doha City, and to make it capable of receiving bigger planes, the Government is working on plans for a new international airport at a site outside Doha. *Power and Water*—The Government is purchasing new electrical power generators which will raise electrical energy at Doha to 100,000 kw. Additional water desalination units of maximum production of 20 million gallons will be bought to cope with rising drinking water consumption. *Broadcasting*—A new broadcast transmitter with a medium length wave capacity of 750 kw, is planned, as well as two similar 250 kw. short wave transmitters. All such transmitters should be installed by this year's end.

BANGLADESH—The State-owned Bangladesh Food and Allied Products Corp. (BFAPC), Adamjee Court Annex (3rd Fl.), Motijheel Commercial Area, Dacca-2, plans to establish various **food industrial plants** at a total cost of about $16 million during the First Five-Year Plan beginning in July. The BFAPC is interested in obtaining turnkey offers with blueprints for any one or all of the plants. Offers should state all terms and conditions regarding erection, commission, supervision and training of local staff. Quotations for plants should be c. & f. Chittagong or Chalna. The proposed plants include starch complex, molasses complex, fish cannery, two fruit and vegetable preservation & canning plants, two biscuit factories, a cold storage plant for vegetables, fruits and fish, a can-making & tin printing operation, and a margarine manufacturing plant. Current will be either 440 volts, A/C, 50 cycles, 3-phase or 220 volts, A/C, 50 cycles, single-phase. A brief summary of each plant is available from the U.S. Department of Commerce, Trade Opportunities Section, BIC-267, Washington, D.C. 20230.

Future Construction Abroad Summary Available

A quarterly summary of future construction projects abroad, contract award stories and significant foreign government tenders published in COMMERCE BUSINESS DAILY during January, February and March is available to U.S. firms from the Trade Opportunities Section, BIC-267, Rm 1322, U.S. Department of Commerce, Washington, D.C. 20230. A pre-addressed mailing label should be included with the request.

The summary, which may also be reviewed at any of the 43 Commerce District Offices listed inside the back cover, alphabetically lists project summaries by country in five distinct classes: airport, seaport, railroad and highway projects; hydro and thermal electric plant and irrigation projects; hospital, hotel and housing projects; industrial plant projects; and comprehensive development projects. Whenever possible, names of contractors and responsible agencies are cited, as well as original publication dates.

A few copies of the fourth quarter 1972 summary are also available upon request and will be distributed on a first-come, first-served basis.

TOGO—The Government has begun to construct a **1500-ton grain storage center** in Togblekope, 18 km. north of Lome, as part of the accelerating program to stabilize cereal stocks in Togo. The center, which will include silos and warehouses for treating and drying grain, is expected to be operational in six months. The Minister of Rural Economy says the new center is only the first step in realizing the objectives of TOGOGRAIN, the Office National de Produits Vivriers, Lome. TOGOGRAIN will act as a stockage regulator, maintaining a balance of supply and demand by offering a minimum guaranteed price to producers during bountiful seasons and assuring consumers an adequate supply at controlled prices during periods of scarcity. TOGOGRAIN plans to reorganize the geographic distributions of cereal products by building similar facilities in each economic region.

JAMAICA — Anchor Properties (Jamaica) Ltd. has concluded plans for construction of **44 two-floor town houses** in a scenic locale near King's House. This is the first phase in the development of some ten acres of land. The second phase will be the construction of a three-story apartment complex comprising 38 units. The project is to be known as Kingsgate Town Houses. The first phase will begin in February and will be completed within ten months. Each of the 44 units will consist of two bedrooms, two bathrooms, living and dining room, patio, balcony and drying deck and will cover just over 1,400 sq. ft. There will be central air conditioning, 20 gal. electric type water heaters, and carpeted ground floor except the kitchen, as well as the bedrooms. Communal facilities include a swimming pool, car parks and service area. The second phase will start immediately after the first is concluded. Anchor Properties' Managing Director, David Lyons, is urgently seeking suppliers of high quality sanitary and plumbing fixtures, lighting fixtures and commercial laundry equipment. Developers: Anchor Properties (Jamaica) Ltd., 18 Hope Rd., Kingston 10, Phone: 926-8251. Architects: Design Collaborative Ltd., 3 Dumfries Rd., Kingston 10, Phone: 926-4288. Contractors to be assigned.

CANADA—Imperial Oil Ltd. has announced that it will invest C$40 million to **expand its refinery in Montreal East.** The expansion will enable the company to concentrate on better-quality products such as low-lead and lead-free gasoline, and environmental protection. The first phase will include a computerized central process and distribution building which will replace five existing control points; new blending units for gas distillates and heavy oil; a new pipeline system within the refinery; relocation of the administration office and refinery laboratories, and new facilities for refinery personnel. A number of gasoline storage tanks will be fitted with floating tops to reduce vapor emissions, and new air-cooling equipment will minimize water consumption from the St. Lawrence River. Tenders will be by invitation, but U.S. suppliers wishing to participate in this project should communicate directly with J. J. Rowan, Refinery Manager, Imperial Oil Ltd., 10510 Notre Dame St. East, Montreal.

THAILAND—Kasem Chatikavanij, general manager, Electricity Generating Auth. of Thailand (EGAT), Bangkluey, Rama-6 Bridge Bangkok, has announced that a **multi-purpose dam will be built on the Pattani River** in Bannang District of Yala, a southern province of Thailand. The project will include the installation of two 20,000 kilowatt generators and a third 20,000 kilowatt generator may be added later when the demand for electricity increases. Actual construction of the dam is expected to begin in 1974, and an international public bid should be announced in late 1973 or early 1974. The entire project, anticipated to be completed in 1978, will cost 904.5 million baht.

CANADA — The Queensway-Carleton Hospital Planning Board has received approval from the Ontario Ministry of Health to proceed with construction of a **234-bed hospital** in the west end of Ottawa. Construction is due to begin in July, with completion scheduled for mid-1975. Offers from U.S. firms, particularly in the area of specialized equipment, are welcomed and should be addressed to: Garry D. Cardiff, Administrator, Queensway-Carleton Hospital, 3754 B, Richmond Rd., Ottawa, Ontario K2H 5B9, (613-828-2066).

VENEZUELA—Venezuela's Minister of Communications has announced that a new, 90-kilometer **railroad is to be constructed between Moron and Riecito.** The Minister stated that bidding for this project probably will be opened in April. Bids will be published as released.

NORWAY — Construction on **Norway's largest hotel** will start shortly. The SAS Royal Hotel in downtown Oslo will house 952 guests in 490 rooms. Total construction costs are estimated at $28 million and the hotel is planned to be finished by **May 1, 1975.**

YUGOSLAVIA — NAFTAGAS, JUGOPETROL and Novi Sad Bank have signed a contract to **enlarge the Novi Sad oil refinery** capacity from 500,000 to 1,270,000 tons by 1975. Key expansion goals of NAFTAGAS over the next four years also include bringing natural gas to Serbia, and increasing oil and gas drilling. A natural gas network to Serbia will require nearly 2 billion ND in the next four years. The World Bank is expected to loan $50 million. Announcement of a bid for equipment and construction of a gas pipeline is expected in mid-1973. Expanded drilling operations are a prime target of the Vojvodina oil industry. U.S. manufacturers and suppliers of pipe, refinery equipment, drilling equipment, and other oil and natural gas-related industries should contact: Andras Kovac, Dir. Gen., NAFTAGAS, Bulevar Marsala Tita 6, 21000 Novi Sad; Mihalj Sefer, Pres., Pokrajinska privredna komora (Provincial Chamber of Economy), Bulevar Marsala Tita 23, 21000 Novi Sad; or Dusan Ckrebic, Pres., Privredna Komora Srbije (Serbian Economic Chamber), General Zdanova 13-15, 11000 Belgrade.

JAMAICA—About J$3 million is to be provided by the World Bank for **school equipment purchases.** Ministry of Education officials say that selection of the equipment should be completed by September and actual purchasing ought to commence by the end of 1973. Two areas deserving special mention are: 1) approx. J$1 million has been budgeted for an educational television system. A multimedia education program center will be established under the Ministry of Education with links—micro-wave or cable—to the Jamaica Broadcasting Corp., which will feed the programs to the schools. 2) School furniture acquired under the World Bank's first loan failed to withstand vigorous use by Jamaican students. Accordingly, brochures and Literature, especially durability test performance data, on school furniture is of particular interest. Send brochures, literature, and price list to: Ministry of Education, 5 South Race Course, P.O. Box 498, Kingston. Attn: H. B. Gilbert.

COSTA RICA—The Ministries of Transportation/Communications and Education are planning to build a regional center for the "Instituto Nacional de Aprendizaje"; six low-secondary schools for rural areas; and laboratories and workshop for 25 secondary schools. The total cost of the project is estimated at $9.2 million. The World Bank is considering a $6 million loan, which may be approved before summer.

JAMAICA—The Government of Jamaica has acquired an additional 400 acres of land for the extension of the Urban Development Corp's (UDC) **redevelopment program for Montego Bay.** The UDC has prepared broad preliminary plans for the area and as phase one of the development has recommended the construction of 1,026 low-cost housing units (between $3,850-$10,000) on 30 acres. The units will be a mixture of two-bedroom individual houses and three-story town houses. This phase will also include a primary school and a youth and community center. Construction is expected to start in the fall. UDC is planning a total of 4,000 units. For further information contact: Urban Development Corp., 40 Harbour St., Kingston, (929-2240).

New Publications

When ordering any publication, indicate title and series designation, if indicated, and make checks or money orders payable to the Superintendent of Documents. Orders should be sent to the U.S. Department of Commerce, Washington, D.C. 20230, or to any of its district offices.

DOMESTIC AND INTERNATIONAL BUSINESS ADMINISTRATION

BUREAU OF EAST-WEST TRADE

Export control bulletin—supplement to export control regulations (ECB-OEC-80). 152pp. 40¢.

Export control bulletin—supplement to export control regulations (ECB-OEC-81). 8pp. 40¢.

BUREAU OF INTERNATIONAL COMMERCE

Export Market Digest

Micrographics

United Kingdom (EMD 73-112). 8pp. 10¢.

Biomedical Equipment

Japan (EMD 73-113). 8pp. 10¢.

Microwave Products

Japan (EMD 73-204). 4pp. 10¢.

Overseas Business Reports

Annual subscription $28.50 ($7.25 more for foreign mailing). Single copy 30¢.

Basic data on the economy of the United Arab Emirates (OBR 73-06). 8pp.

SOCIAL AND ECONOMIC STATISTICS ADMINISTRATION

BUREAU OF THE CENSUS

Construction and Housing

Value of new construction put in place: February 1973 (C30-73-2). 28pp. Annual subscription $5.50, includes monthly and annual supplements ($1.50 more for foreign mailing). Single copy 55¢.

Housing authorized by building permits and public contracts: January 1973 (C40-73-1). 96pp. Annual subscription $17.50 ($4.50 more for foreign mailing). Single copy (monthly) $1.25. Single copy (annual) $4.50.

Residential alterations and repairs—expenditures on residential additions, alterations, maintenance and repairs, and replacements: 1970-71 annual report, part 2—one housing-unit owner-occupied properties (C50-70-71A). 40pp. 75¢.

1970 Census of Housing

Housing characteristics by household composition (HC(7)-1). 646pp. Available over-the-counter at Government Printing Office Bookstores, $5.25; by direct mail (domestic), $5.90.

Distribution and Services

Monthly department store sales in selected areas: February 1973 (BD-73-2). 10pp. Annual subscription $1. Single copy 10¢.

Monthly retail trade—sales and accounts receivable: Feb. 1973 (BR-73-2). 34pp. 40¢.

Weekly retail sales—supplement: final weekly sales estimates, 1967 through 1972 (BR-10-72S). 14pp. 15¢.

Monthly wholesale trade—sales and inventories: February 1973 (BW-73-2). 20pp. Annual subscription $3.50 ($1 more for foreign mailing). Single copy 35¢.

Weekly retail sales. Estimated weekly sales of U.S. retail stores for weeks ending April 14 and April 21 (CB 73-97 & CB-73-106). 2pp. 15¢.

Foreign Trade

Imports—commodity by country: January 1973 (FT 135-73-1). April 1973. 194pp. Annual subscription $46 ($11.50 more for foreign mailing). $4 per copy.

Exports—commodity by country: January 1973 (FT 410-73-1). 372pp. Annual subscription $72.50 ($18.25 more for foreign mailing). Single copy $6.25.

Waterborne exports and general imports: November 1972 (FT 985-72-11). 20pp. Annual subscription (FT 900, 975, 985, and 986 combined) $3. Single copy 10¢.

Waterborne exports and general imports: December 1972 (FT 985-72-12). 20pp. 10¢.

Airborne exports and general imports: February 1973 (FT 986-73-2). 4pp. 10¢.

Industry

Fats and oils, vegetable oil crushers: summary for 1972 (Series M20J(72)-13). 22pp. Annual subscription (incl. M20K) $3. Single copy 15¢.

Nonferrous castings: summary for 1972 (Series: M33E(72)-13). 10pp. Annual subscription $1.50. Single copy 15¢.

Population

Population Estimates and Projections

Estimates of the population of the United States to March 1, 1973 (Series P-25, No. 498). 2pp. 15¢.

Federal-State Cooperative Program for Population Estimates

Federal-State cooperative program for local population estimates: test results—April 1, 1970 (Series P-26, No. 21). 54pp. $1.25.

Estimates of the population of Rhode Island counties: July 1, 1971 and July 1, 1972 (Series P-26, No. 22). 4pp. 25¢.

1970 Census of Population

Characteristics of the Population

Idaho, Vol. I, part 14. January 1973. 602pp. $6.75 (hard cover).

Supplementary Reports

Detailed occupation of employed persons by race and sex for the United States: 1970 (PC(S1)-32). 10pp. Available over-the-counter at Government Printing Office Bookstores, 20¢; by direct mail (domestic), 30¢.

Characteristics of civilian male veterans for the United States: 1970 (PC(S1)-33). 4pp. Available over-the-counter at Government Printing Office Bookstores, 10¢; by direct mail (domestic), 20¢.

ECONOMIC DEVELOPMENT ADMINISTRATION

The research review, Winter 1973. 120pp. $1.25. Published for the employees of the Economic Development Administration, the Regional Commissions, and all other groups and organizations concerned with economic development as one means of keeping these persons informed of the nature, results, and applications of research into regional problems.

SCIENCE AND TECHNOLOGY

NATIONAL OCEANIC AND ATMOSPHERIC ADMINISTRATION

NOAA, Vol. 3, No. 2, April 1973. Quarterly. Annual subscription $5.50 ($1.50 more for foreign mailing). Single copy $1.50.

Environmental Research Laboratories

Aerosol and precipitation chemistry at Mauna Loa Observatory (ERL 248-APCL 24). 62pp. 85¢. The experiments described in this report were developed to test and evaluate prototype tools and advanced techniques to predict geologic conditions on the sea floor.

Temperature and C_n^2 profiles measured over land and ocean to 3 km above the surface (ERL 251-WPL 22). 44pp. 75¢. Measurements were made with probes mounted on a moving carriage on ERL's 150-m tower near Haswell, Colo., and from aircraft-mounted probes flown over eastern Colorado and over the Pacific Ocean southwest of San Diego, Calif.

Currents observed in Juan de Fuca submarine canyon and vicinity, 1971 (ERL 252-POL 14). 62pp. 85¢. Description is given of the experiment, and of the current measurements and related data recorded in the Juan de Fuca submarine canyon, on the surrounding continental shelf, and in the mouth of the Strait of Juan de Fuca during Oct.-Nov. 1971.

National Marine Fisheries Service

Marine fisheries abstracts (formerly Commercial Fisheries Abstracts). Vol. 26, No. 4. Annual subscription $6.50 ($1.75 more for foreign mailing). Single copy 65¢. This publication contains summaries of selected articles from trade, engineering, and scientific journals dealing with the entire spectrum of fishery science.

NATIONAL BUREAU OF STANDARDS

Technical news bulletin. Vol. 57, No. 4. Annual subscription $6.50 ($1.75 more for foreign mailing). Single copy 65¢. This periodical is published to keep science and industry informed regarding the technical activities of the National Bureau of Standards.

NBS reactor: summary of activities, October 1971 to September 1972 (Tech. Note

758). 140pp. Available over-the-counter at Government Printing Office Bookstores, $1.75; by direct mail (domestic), $2.10. This report covers the period from October 1971 through September 1972. The programs range from the use of neutron beams to study the structure and dynamics of materials through nuclear physics and neutron standards to sample irradiations for activation analysis, isotope production, and radiation effects studies.

A gamma ray moments computer code, GAMMOM-I (Tech. Note 766). 42pp. Available over-the-counter at Government Printing Office Bookstores, 50¢; by direct mail (domestic), 75¢. This paper describes a computer code for generating spatial-angular moments of gamma ray energy fluence in an infinite medium. The equation for moments of the energy fluence is given, and the techniques used for the solution are discussed. The structure of the code and of the main subroutines is also given.

Microelectronic interconnection bonding with ribbon wire (Tech. Note 767). 32pp. Available over-the-counter at Government Printing Office Bookstores, 35¢; by direct mail (domestic), 50¢. This study was undertaken in order to investigate the use of aluminum ribbon wire for ultrasonic bonding in semiconductor microelectronics, with emphasis on the advantages over round wire and the problems that might be encountered in converting presently used round wire bonding equipment to ribbon wire use.

Tabulation of voluntary standards and certification programs for consumer products (Tech. Note 762). 120pp. Available over-the-counter at Government Printing Office Bookstores, $1; by direct mail (domestic), $1.25. This tabulation is a revised and enlarged version of NBS Technical Note 705.

A set of debugging and monitoring facilities to improve the diagnostic capabilities of a compiler (Tech. Note 763). 26pp. Available over-the-counter at Government Printing Office Bookstores, 35¢; by direct mail (domestic), 50¢.

NATIONAL TECHNICAL INFORMATION SERVICE

Order the following reports on Government-sponsored research from: National Technical Information Service, 5285 Port Royal Road, Springfield, Virginia 22151. Make check or money order payable to National Technical Information Service. Price for each document is $3 (microfiche 95¢) unless otherwise specified.

1972 world survey of current research and development on roads and road transport (PB-217 122). International Road Federation, Washington, D.C., December 1972, paper copy $9, 385pp. Discusses current studies in 69 countries excluding the United States. Report includes in-depth studies on design and operational experience on high-speed freeways, and fatigue-failure and stress-corrosion problems in bridges.

Environmental resources management (PB-217 517). Central New York Regional Planning and Development Board, Syracuse, N.Y., October 1972, 42pp. Discusses the critical nature of natural resource conditions, and presents an environmental impact chart which allows the reader to determine various impacts which may result from employing selected development techniques.

Handbook of judicial decisions (through October 20, 1972) involving environmental impact statements (AD-757 060). Center for Naval Analyses, November 1972, paper copy $5.45, 121pp. Excerpts from courts' EIS decisions concerning national security, housing, energy (oil, electric, atomic, helium, and natural gas), sewage, waterways, and highways.

Annotated bibliography of explosive excavation related research (AD-757 157). U.S. Army Engineer Waterways Experiment Station, Livermore, Calif., July 1972, paper copy $6.75, 219pp. Contains abstracts of all reports prepared by the USAE Nuclear Cratering Group (NCG), the USAE Waterways Experiment Station Explosive Research Office (EERO), and the USAE Waterways Experiment Station Explosive Research Laboratory (EERL), from fiscal year 1962 through fiscal year 1972.

Aviation forecasts: fiscal years 1973-1984 (AD-757 174). Federal Aviation Administration, September 1972, paper copy $3.75, 48pp. Covers aviation industry forecasts, FAA air traffic activity forecasts, and airmen forecasts.

The following reports concerning stability characteristics of standard (96") and wide (102") intercity buses and trucks are available. A hybrid computer simulation is used to predict effects on vehicle stability, control, and path deviation caused by aerodynamic disturbances generated when the vehicles pass small or intermediate-size passenger cars, and cars towing recreational trailers:

A study of the aerodynamic effects and stability characteristics of buses. Vol. I: summary report (PB-216 411). Bendix Corp., Southfield, Mich., November 1972, paper copy $3.75, 37pp.

Same title. Vol. II: technical report (PB-216 412). Paper copy $9, 355pp.

Productive employment of the disadvantaged: guidelines for action—an operating manual (PB-217 124). Human Interaction Research Institute, Los Angeles, Calif., February 1973, paper copy $6, 200pp. Discusses experiences of various companies in recruiting, hiring, training, and upgrading disadvantaged persons.

New techniques for measuring and improving reading comprehension (AD-757-415). American Institute for Research, Silver Spring, Md., February 1973, paper copy $4.85, 82pp. Evaluates validity of a reading-storage technique, and effectiveness of programmed prose in both low and high motivation conditions.

An information systems aproach to generating reports for the Federal banking agencies (PB-216 992). Federal Reserve System, Washington, D.C., May 1972, paper copy $4.85, 89pp. Describes the Bank Report Reform Project, including its background, purpose, general characteristics, scope, relation to banks' own information and record activities, present status, and outlook.

Planning for Coastal Ports on a Systems Basis: Preliminary Methodological Design. (AD-752 154). Pennsylvania Transportation and Traffic Safety Center, University Park. 245pp. $3. Reviews literature on the analysis of multiport deep draft transportation systems. Pinpoints areas needing investigation and identifies promising methods. Includes quantitative models for economic forecasting, shipping operations studies and port planning and design. There is an annotated bibliography and a computerized bibliographic index.

Computer-aided instruction—selected abstracts (NTIS-PK-140). National Technical Information Service. 97pp. Paper copy only, $20. Contains 96 selected abstracts pertaining to computer aided instruction, programmed instruction, input-output devices, and various teaching methods.

Proceedings of the 21st international wire and cable symposium (AD-752 908). U.S. Army Electronics Command. 384pp. Paper, $6. Topic areas covered include multipair cable design and shielding, special cables for marine application and advanced systems, environmental effects and protection of telephone cable, wire materials and terminations, cable manufacturing methods, communication cable and sheath design, coaxial and multiconductor cable, and cable materials.

1972 Government microcircuit applications conference—digest of papers (AD-751 316). 444pp. Paper, $10.50. Topic areas covered include: surface acoustics, microcircuit packaging, optoelectronics, radiation hardening, digital circuits and systems, hybrid microelectronics, new solid state devices, microwave integrated circuit systems, linear integrated circuits, microcircuit processing and integrated circuit techniques, microwave integrated circuits, and microelectronic memories.

Total organic carbon removal from municipal and industrial wastewater (PB-213 772). Environmental Protection Agency's Water Quality Office, Denver. 28pp. Discusses methods of removing total organic carbon from municipal and industrial wastewaters, focusing on the physical-chemical process of activated carbon treatment. Examples of plant variables, data, and costs are given.

Innovations in apprenticeship: the feasibility of establishing demonstration centers for apprenticeships and other industrial training (PB-213 555). U. of Wisconsin. 91pp.

Handbook of information to manpower agencies: a compilation of practice principles and strategies for manpower operations (PB-214 394). University of Michigan, Ann Arbor. Paper, $10.60. 415pp. Emphasis is on practical application of well-documented operational principles.

Guide to practice: open housing under law (PB-214 276). Leadership Council for Metropolitan Open Communities, Chicago. Paper, $3.75. 44pp. Presents elements of lawsuits and basic forms and procedures which can be used by attorneys in prosecuting cases of alleged discrimination in housing.

Requirements and design of a labor market information system for a large metropolitan area (PB-213 744). U. of California, Berkeley. 338pp. $9. Studies needs for labor market information in the San Francisco-Oakland and San Jose standard metropolitan statistical areas.

Criteria for a recommended standard: occupational exposure to inorganic lead (PB-214 265). National Institute for Occupational Safety and Health, Rockville, Md. Paper, $5.45. 104pp. Presents criteria and recommended standard for preventing occupational diseases arising from exposure to inorganic lead.

Louisiana Superport Studies, Report No. 1: Preliminary Recommendations and

Data Analysis (COM-73 10164). Center for Wetland Resources, Louisiana State Univ. 425pp. $10.60. Discusses legal problems, economic considerations, environmental ramifications, and engineering aspects of constructing a deep water port in the Gulf of Mexico to service supertankers.

A Microwave Technique for Detecting and Locating Concealed Weapons (PB-213 323). Transportation Systems Center, Cambridge, Mass. 51pp. $4.50. Gives the advantages of using microwave equipment to screen boarding passengers for weapons concealed under clothing.

Fundamental Research on Machining of Brittle Materials (AD-753 027). Honeywell, Inc. 23pp. Reviews consequences of ceramic machining on surface, mechanical and magnetic properties.

Measurement and Prediction of Criminal Behavior and Recidivism: The Environmental Deprivation Scale (EDS) and the Maladaptive Behavior Record (MBR) (PB-213 738). Rehabilitation Research Foundation, Elmore, Ala. 15pp. Outlines how these two instruments can predict criminal behavior and recidivism and tell where to use intervention, treatment and retraining for specific environmental and behavioral deficits.

Evaluation of Fire Retardant Fabrics (AD-754 935). Aerospace Medical Research Lab, Wright-Patterson AFB. 21pp. $3. Gives comparison data on two synthetic materials which shows Polybenzimidazole is superior to Nomex in longer fire-retardant protection.

Crude Oil Behavior on Arctic Winter Ice (AD-754 261). U.S. Coast Guard. 76pp. $4.85. Investigates oil spread rate, oil absorbtion and aging of oil on snow and ice surfaces, and effectiveness of various cleanup procedures by conducting small control oil spills on the Bering Sea in Northwestern Alaska using Prudhoe Bay crude oil.

Employment Effects of the Mandatory Deposit Regulation (PB-214 177). Illinois Inst. for Environmental Quality. 33pp. $3.75. Concludes that a complete shift to returnables through a deposit regulation on beverage containers in Illinois would increase employment by 6,600 jobs.

Hazards of Spillage of LNG into Water (AD-754 498). Bureau of Mines, Pittsburgh. 92pp. $4.85. Assesses the hazards of vapor expolsions, and shows that explosions under various experimental conditions did not ignite the flammable vapor cloud and that the energy release is very modest relative to chemical explosions.

Environmental Volunteers in America—Findings and Recommendations of the Steering Committee of the National Center for Voluntary Action's Environmental Project (PB-214 186. National Center for Voluntary Action, Wash., D.C. 643pp. $12.50. Examines and identifies volunteers' organizational problems within the environmental movement.

Research on Metallurgical Synthesis (AD-753 910). Battelle Columbus Labs. 121pp. $5.45. Presents tasks on metallurgical synthesis which aim at developing improved microstructures in aluminum and titanium alloys.

Development of a piezoelectric driver for a ventricular assist device (PB-214 471). Physics International Co., San Leandro, Calif. Paper, $6.75. 213pp. Develops a piezoelectric driver that uses a stack of piezoelectric disks driven at voltages much higher than in conventional piezoelectric applications.

Identification of Opportunities for Increased Recycling of Ferrous Soli/ Waste (PB-213 577). Institute of Scrap Iron & Steel, Washington, D.C. 409pp. $10.60. Identifies and discusses problems inhibiting greater use of iron and steel scrap. Recommends solutions. Examines sources, types, quantities and markets for iron and steel scrap. Reviews processing industry and the technology of scrap usage.

Status of Advanced Waste Treatment (PB-213 819). Environmental Protection Agency. 80pp. $4.85. Reviews the advanced waste treatment program and emphasizes developments that are ready for full-scale engineering application.

Hydrodynamic Winch for Salvage Operations (AD-735 464). Naval Undersea Center, San Diego. 25pp. The hydrodynamic winch is proposed as a practical means of lifting heavy loads of 1,000 tons or more from ocean depths.

Police Background Characteristics and Performance (PB-212 813). New York City Rand Institute. 206pp. $6.75. Compares factors in the lives of nearly 2,000 New York City policemen to their effectiveness on-the-job—to improve performance measures and selection procedures.

Metropolitan Housewives' Attitudes Toward Solid Waste Disposal (PB-213 340). National Analysts, Inc., Phila. 114pp. $5.45. Gives questions and answers asked the average citizen regarding pollution. Analyzes attitudes and knowledge. An aid to planners and designers in developing educational and other programs.

An Investigation of the Biodegradability of Packaging Plastics (PB-213 488). Union Carbide Corp. 87pp. $4.85. Verifies that the current high volume, high molecular weight packaging plastics are not biodegradable at practical rates. Says that the structural modification of polyethlene and polystyrene by random copolymerization with other monomers will not lead to decomposition.

Recommended Standards for Sanitary Landfill Design, Construction, and Evaluation and Model Sanitary Landfill Operation Agreement (PB-213 472). Environmental Protection Agency, Rockville, Md. 25pp. Tells of method to measure level of acceptability of operations at a disposal site, and to compare it with other evaluated sites. Recommends provisions to be included in instructions to landfill bidders and an agreement form for a model sanitary landfill operation.

Baling Solid Waste to Conserve Sanitary Landfill Space: A Feasibility Study (PB-214 960). San Diego City, Calif. 89pp. $4.85. Studies baling to reduce hauling distances, to fill small canyons and to improve compaction. Develops formulas and techniques that could help other communities with their solid waste collection and disposal problems.

Design of Consumer Containers for Reuse or Disposal (PB-214 012). Environmental Protection Agency, Washington, D.C. 341pp. $3.75. Papers presented at symposium held in Columbus, Ohio. Topic areas cover plastics, composites, and paper; glass containers; and metallic containers.

Rule Making on Polychlorinated Biphenyls (EIS-AA-72-5804-F). Food and Drug Admin. 31pp. $3.75. Discusses regulations that limit human exposure to polychlorinated biphenyls PCB's from dietary sources. Pinpoints their effects on establishments involved in food handling, processing and packaging and industries using PCB's.

Plastics Fabrication by Ultraviolet, Infrared, Induction, Dielectric and Microwave Radiation Methods (AD-756 214). Plastics Technical Evaluation Center, Dover, N.J. 160pp. $11. Up dates the progressive evolution of non-ionizing radiation methods. Gives guidelines to the advantages, disadvantages, and general economics in using these processes—crosslinking or curing, heating and drying, bonding, thermoforming, and preheating for transfer molding.

Cost and Supply Analysis for Alum and Methanol Used in Wastewater Treatment (PB-213 779). Environmental Protection Agency. 32pp. $3.75. Looks at the future supply needs of sewage processors for the chemicals required in removing nitrogen and phosphorus; and discusses the effects on the manufacturing and trucking industries.

Nutrient Removal from Wastewater by Physical-Chemical Processes (PB-213 783). Environmental Protection Agency. 50pp. $3.75. Considers the most promising advanced waste treatment methods for removal of phosphorus and nitrogen from wastewater.

Auto-Free Zones: A Methodology for Their Planning and Implementation (XF-213 992). Barton-Aschman Assoc., Washington, D.C. 73pp. $4.50. Defines planning objectives and principles for auto-free zones and describes various financial and organizational approaches to implementation. Auto-free zone experience in the U.S. and Europe is summarized.

An Evaluation of a Computer-Based Intelligence Test (AD-753 833). Florida State Univ. 72pp.

OFFICE OF TELECOMMUNICATIONS

Data results on nanosecond pulse propagation measurements over line-of-sight paths (OT/TRER 37). November 1972. 38pp. 65¢. An experiment to determine effects of atmospheric multipath propagation and of dispersion on extremely short pulses.

A method for finding D-region electron density distributions from L.F. broadband pulse measurements (OT/TRER 38). November 1972. 74pp. 95¢. A Loran-C transmitter is used as the signal source for the experiment.

An engineering feasibility study of communications via a subterranean waveguide (OT/TRER 39). November 1972. 132pp. $2.10. The prediction permits an engineering estimate of the likely distance one could communicate via this subterranean waveguide, based on assumed waveguide parameters.

Effect of variability in received power on probabilities of communication and delay in land mobile communication systems (OT/TRER 40). December 1972. 52pp. 75¢. This study is concerned primarily with the random variations of received power, or, equivalently, basic transmission loss due to variation in the terrain around a mobile receiver and a mobile transmitter.

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